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The Town Hall at Milford, Connecticut

By Egerton Swartwout

SOME four years ago the town hall at Milford, Connecticut, was destroyed by fire. It was an interesting old structure, familiar to all who motored between Bridgeport and New Haven, and was really composed of two buildings which were joined together and connected with a portico of wooden columns. It stood in the centre of the town on the main high road, in a triangular park or heater-piece, through which ran a small river which was dammed back of the building and formed quite a good-sized pond. Milford is one of the oldest of the Connecticut coast towns, having been founded as early as 1639, taking its name from an old mill which stood on the little stream, somewhat below the site of the town hall. According to the records, the first town hall in Milford was a small frame structure built in 1645, and since that time there have been four other halls, including the one illustrated in this number of *ARCHITECTURE*, the second being built in 1734, the third in 1758, and the fourth in 1832. All of these buildings stood on the identical site of the present structure.

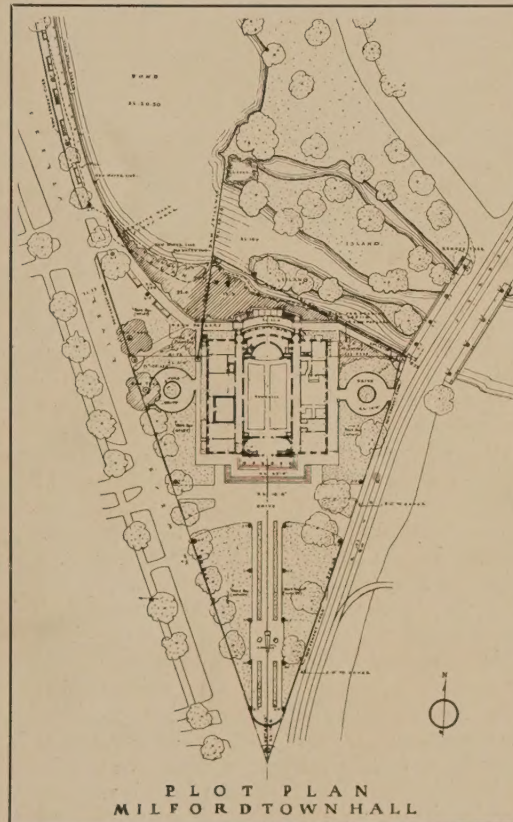
When the old building burned in 1915 there was a divergence of opinion among the townspeople as to just where the new town hall should be built. There were many who favored the old site for historical and conservative reasons, but there were others who thought that it would be better to leave the old site unencumbered and turn it into a park, placing the new building at the extreme corner of the lot on the other side of the pond and on slightly higher ground. The committee to whose care was intrusted the erection of the new building adopted a very wise and at the same time unusual procedure. Having decided that a competition was necessary, they resolved to have the question of site settled by the competing architects before the competition was held. So one rainy, cold morning in early spring some eight of us assembled in Milford and solemnly marched around the site, and unanimously came to the conclusion that it would be the height of folly to consider

any other but the original location, on the ground that there was not room enough in the corner of the property to place a satisfactory building, nor was the grade level enough at that point, and that a building so placed would lose the long central approach which was such a striking feature of the old site. The building committee unanimously sustained

this decision, and the competition was held on this basis. I think this is the first time on record that such a procedure has been adopted, and I mention it particularly here because in my opinion this precedent could have been followed very advantageously in many other competitions in which I have participated. If the competitors had been given the alternative of either site, it would have made the judgment extremely difficult, because the solution of the problem would not then have been limited merely to the requirements of the building but would have been complicated by the addition of the vexed question of the selection of the site.

The problem was relatively simple, the main feature naturally being the large auditorium or town hall proper, which was to seat seven or eight hundred people and be provided with a balcony and a small stage. There was also to be a large room for the town court, with the judge's retiring-room and a room for the chief of police, connected with the police lockup in the basement. There were also to be accommodations for the administrative officers of the town, the board of selectmen,

the town clerk, the assessor, and the judge of probate. The competition programme as drawn rather suggested a two-story building, and such a building would certainly have been more economical and more easily contained in the very scant allowed cubage than the one-story type. It seemed to us, however, that there were very vital objections to the two-story proposition. It either meant that the town hall would be placed on the second story and that a relatively great number of people would, in case of fire, be some twenty feet up in the air, or else that the comparatively



small number of people who were using the building every day would be compelled to walk up a flight of stairs some thirty or forty feet high. Unquestionably, the one-story type was least objectionable; there was plenty of room on the lot for it and it seemed to fit in better with the surroundings, and we found that the problem treated in this manner resolved itself into a perfectly logical and simple arrangement.

The auditorium or town hall proper was the largest room, and on account of its balcony, necessarily the highest. The natural scheme was to put this room in the centre of the building, carrying it up above the roof of the wings. In this way clearstory lighting could be obtained, and the other rooms arranged themselves in two or perhaps three natural groups, the largest and most important of which was the town court and its dependencies. It seemed essential that this group should be kept separate as much as might be from the rest of the building, and yet it seemed difficult to introduce a separate entrance on account of the scant cubage allowance. However, it was perfectly feasible, by the introduction of a gate in the side corridor, to cut off, when necessary, the town court from the front portion of the building, access to the court being then through a door on the rear portico. The natural grade has a drop of four or five feet away from the west to the east side, therefore it was more logical to put the town court on the east side of the building, so that the police headquarters and lockup would be practically at the grade-level on that side. The police quarters could be entirely hidden from view by carrying a solid brick wall along the eastern side at the level of the terrace at the front of the building. The rooms of the judge and the police commissioners could then be entered through a private lobby back of the court-room and directly connected with the police headquarters below by a private staircase. In the second group were the offices of the town clerk, the assessor, and the judge of probate. In the competition programme these offices were to connect with a large vault which would be common to all, and this innocent little clause proved one of the most difficult features to arrange in the whole building, and like many other similar difficulties was found later to be entirely unnecessary, as the committee themselves afterward suggested that there might better be two vaults, one for the town clerk and judge of probate and another for the assessor, and this change made capable of adoption the perfectly simple and logical arrangement indicated in the little sketch plan. The selectmen's rooms were then placed in the east wing, at the right of the entrance, exactly filling in the space left in this wing after the town court had been provided for. The result of this arrangement is that the auditorium is the central feature of the building, on the main floor and easily accessible to the public. It can be cut off from the rest of the building and need not be heated except when required. It is entered directly from the front portico and has exits into the side corridors and from the stage directly to the rear portico. In case of fire the hall can be emptied from all sides within a very few minutes.

In the competition programme the style of the building was left to the competitors, with the suggestion that historical tradition and the propinquity of two interesting old wooden churches might make advisable the selection of what is known as the colonial type. The site definitely calls for a dominant central feature. The main high road branches in the shape of a Y directly in front of the building, and the main axis is on the line of the high road, so that a pedimented portico is practically demanded. The cupola is such a distinctive colonial form for buildings of this character that its use seemed absolutely essential. The amount of money at the disposal of the town was not such as to warrant the thought of marble or even stone columns, therefore following the precedent of the old work

the columns, cornices, balustrades, and cupola are all made of wood, painted white. The walls are of what is known as Harvard brick, laid in Flemish bond, with a certain proportion of black headers, and the entrance-steps, column bases, keyblocks, and sills are of white marble.

While it might be said that the building is colonial in type, it is certainly not a copy of any existing work, nor has it been thought necessary to respect the limitations which were imposed on the colonial architects by the lack of adequate material or by their relatively slight experience in monumental work. I presume

the treatment that an architect of those times would have adopted would have been the usual two-story treatment of the central hall. The entrance-door would have been carried through on the level of the first story window-heads; and there would have been square-headed windows in the second story of the auditorium. Instead of that, we have carried the cornice of the wings through under the portico as an impost, and the great entrance-door, which is fifteen feet in width, becomes thereby proportionate to the size of the portico. Another departure from strictly colonial ideas is the treatment of the clearstory windows. There are six of these and they are semicircular in form, arranged somewhat after the manner of those used in Roman days. By this means much higher and bigger windows are obtained than could have been had if the cornice had been carried through unbroken, and a more interesting fenestration has been secured. In this connection there is a rather interesting piece of detail at the intersection of the cornice of the portico with the cornice of the main building. The portico cornice has quite a projection and is mutular in character, and it is quite evident that a cornice with such a projection would not do at all for the treatment over the semicircular clearstory windows, the successful treatment of which requires a simple cornice with a very flat projection, more in the manner of a band course than an actual cornice. Consequently, in order to reduce this projection the pilaster back of the end column of the portico was set back from the corner of the building about a foot, and the corona of the portico cornice carried through unbroken around the auditorium, the difference in projection being taken up by the foot break above mentioned. This makes a very natural and I think successful solution, and is not at all noticeable in the actual structure. It might



Detail in selectmen's room.

be worth noting in this connection that the cornice over the pediment is treated in a manner similar to that in the Greek temples, that is, the pediment cornice has not as much projection as the cornice below and is simpler in form, the mutules being omitted. This naturally necessitates setting the tympanum beyond the frieze face, in this case about five or six inches, but here again this divergence from the customary is not noticeable in the building. Those who have been fortunate enough to visit Dublin may remember the treatment of the entablature of the Custom House, which, with modifications, is the prototype of the cornice in this building.

Directly back of the portico is the vestibule, from which opens the auditorium, and in this vestibule are double self-supporting stairs leading to the gallery, which are shown in the illustration. (See Plate XXVIII.) These stairs are made of reinforced concrete, with white marble aggregates polished, the treads being of white marble. The balustrade is extremely simple and the whole effect of such a stairway is naturally dependent upon the care with which the curves are worked. Some

seven or eight years ago we built a somewhat similar stair in a little library in Stamford and made use of a method of construction which since then has been used by us quite a number of times, and undoubtedly by others, but which, though now perhaps well known, may be worthy of description. From a carefully worked-out drawing at three-quarter-inch scale a plaster model of the complete staircase is made, and the curves of the strings and soffit on this model are carefully worked over until they present a perfectly continuous and unbroken line. From this model as a basis the rough form for the concrete stairs is prepared, the top of the form, which forms a reverse template of the soffit of the stairs, being made on wooden supports in cinder concrete, trowelled smooth. It can be easily seen that it is an absolute impossibility to reproduce properly in wood the warped surfaces of such a soffit. The wall strings and face strings are made of floor boards laid vertically, built up drum-fashion and notched to show the riser face. If this preparatory work is done carefully and care taken to keep all unnecessary false work out of the line of vision, a very good idea can be gotten of the curves and the lines of the soffit from above and of the strings from above or below, and any requisite corrections can easily be made in the form. In other words, the forms are modelled full size. After the work is set and the forms removed the aggregates should be rubbed and polished by hand. Unfortunately, in this particular operation, the work was done by a machine polisher, which proved unreliable and unsatisfactory.

The main auditorium is a room about forty feet by ninety, and will seat about seven hundred people. It is well lighted by the semicircular windows before mentioned,

and I am glad to say that the acoustics are excellent, although this could only be expected, as the work had been laid out under the direction of the late Professor Sabine, of Harvard. The semicircular ceiling of the niche which forms the stage is covered with acoustical felt, and the same felt is also used on the rear wall of the auditorium. This felt is covered with unbleached muslin stained a soft purple tone, which is draped and held in place by plaster ornaments which are gilded, and it is quite interesting to see the rich effect obtained by this very simple material.

Unfortunately, on account of the light conditions, this does not show very clearly in the photograph of the interior of the room. The stage has no curtain and is not intended for theatrical performances, the hall being used for town meetings, school exercises, lectures, and other similar entertainments. The offices and corridors throughout the building are generally treated in a very simple manner, although an attempt has been made to keep the same feeling and character throughout the entire building. The corridors are vaulted and the doors are of mahogany. The



Side of building.

woodwork is pine, painted white, with the exception of the town court, which is in oak.

One rather interesting feature in connection with the building came up in the design of the hardware. We had specified special hardware with the seal of the town of Milford in low relief on the knobs. When we came to have this work modelled, it was found that the town of Milford had no seal, and we were faced with either the abandonment of the scheme or the production of a seal that would be suitable to the town. It seemed to me certain that such an old town as Milford must have some historical records which would be of value in the design of the seal. The matter was brought to the attention of the citizens and resulted in a large number of letters from old residents and the unearthing of a great many documents that had hitherto been unknown. It was found that the original survey of the town property had been made by Robert Treat, and that Robert Treat used a seal which was octagonal in form—very unusual and very interesting. It was also found that in some of the old deeds there was a seal or initial used composed of the letters M F united; also that when the original property was bought from the Indians the deed was signed by Anawastae, the local Indian chieftain, with his mark, which was supposed by some to represent a bow and arrow. If the curious little wiggle that was given me was really meant to be a bow and arrow, I have a still



lower opinion of the artistic abilities of the aborigines than I had before, but, in any event, it was an interesting little bit and was incorporated into the design. The result, as the illustration shows, was extremely simple and really very effective, and was formally adopted by the town at a town meeting.

The Writing of Specifications

Care and Special Knowledge Essential—The Importance of Definiteness—There Should be No Room for Doubt

By David B. Emerson

IN the present seeking after efficiency and system in all lines of architectural effort, the architect's specification must needs have its inning.

Working drawings have been improved wonderfully of late years, but specifications, unfortunately, have not kept pace with the steady march of improvement.

Many of our leading architects, whose drawings are above reproach, still continue to send out specifications that are of little practical value to the contractors; in fact, in some cases they are almost useless.

An accurate, carefully written specification will do much to overcome many of the troubles which architects have with their buildings, reduce the number of extras, prevent misunderstandings, and, above all, in contracts which are let by competitive bidding, get lower bids and oftentimes save expensive revision of drawings when bids run too high and something has to be done to reduce the cost.

Although in these times draughtsmen are both numerous and capable, good specification writers are comparatively few in number, and a great many of our most able office assistants know very little about that quite essential part of an architect's work, the writing of specifications, and for the most part show little or no inclination to learn.

The reasons for this condition are obvious. In the smaller offices the architect frequently writes the specifications himself, therefore the assistants have no part in it. The opportunity to learn much about the subject is limited, as our architectural schools are obliged to crowd so many essentials into a short four years' course that the subject of specifications can only be briefly touched upon, and for those who may wish to take up the study of the subject after finishing school the number of books on the subject are few, and the really valuable books are only a very small portion of that few.

It is not the intention of the writer in this short article to tell all about specification writing, mostly because he doesn't know it, and also because the subject is altogether too large a one to be treated to a finality in one article; but for the benefit of those younger members of the profession who may wish to learn something of the subject, I will detail some of the points which I have found valuable in writing specifications, and some errors which I have found in my own and in other men's specifications which may be avoided.

The two first and great essentials of a really good specification are completeness and brevity; every point to be covered, and no unnecessary verbiage to confuse the contractors and hide the real meaning of the various clauses of the specification.

A specification should be so written that in case of dispute it could be taken into court and stand the test of litigation successfully.

Right here let me impress upon the reader the value of the liberal use of the word "all." Wherever it is possible specify "all." As in excavation, say: "The contractor shall do all excavating required to complete the work, etc.," and there is no room for quibbling over how much is to be done or included in the contract.

In writing a specification, one of the first essentials in obtaining the best results for all parties concerned—the owner, the architect, and the contractor—is to arrange the work of all trades as nearly as is possible in the order in which the building is constructed; also to have all of the work which is to be done by any one contractor arranged in direct sequence, as it is not fair to assume that a subcontractor will read all through a long specification to find any part of his work which may have been written into some other part of the specification.

In writing the specification for any one trade, always specify the materials and workmanship first, that the contractor may know what he has to furnish; then specify what parts of the building it is to be used in, and he can tell how much he has to furnish.

Careful checking after writing is very essential, as many contractors are only too willing to take a contract, knowing full well that there are important items omitted in the specifications, and then after signing the contract to make extortionate demands for extras.

The first part of all specifications being the general conditions, it is well to consider them first in starting to write a specification. The American Institute of Architects publishes a very thorough and complete set of general conditions which, in the opinion of the writer, should be used whenever possible, to promote a uniformity in specifications and a greater harmony between the architectural profession and the building trades.

That a certain amount of standardization of specifications is desirable cannot be denied and all movements toward that end are welcome, but, on the other hand, over-standardization is always questionable, and most all specifications which have been made up of stock clauses and by means of card indices have been failures. In the specifying of materials one cannot be too explicit as to quality, grade, etc. With lumber and timber, always give grading as called for in the grading rules of the lumber and timber associations.

In all cases where a standard specification has been adopted by the American Society for the Testing of Materials, specify that material shall be according to the society's specification.

One of the most vexing questions in the specifying of materials is that phrase "or equal to," which causes more worry and trouble than anything else in the whole range of specification writing.

If any material or appliance is so high in quality as to be accepted as a standard there is in all probability nothing on the market which is equal to it, and in nearly every case the contractor's idea of "equal to" is something much cheaper. So if a certain article is wanted and it is believed to be the best of its kind, specify it outright, because you believe that it has no equal.

With most materials where special makes or patterns are not particularly desired, it is best to follow the method of the United States Government and call for certain requirements as to weights, method of manufacture, and quality, establishing a standard of what you require and allowing any materials meeting those requirements to be used.

In private practice it is not necessary to follow that method, which, however, with the government is mandatory, as the law does not allow materials or appliances to be used on government buildings to be specified under make or pattern.

In specifying materials for any proposed work, an important factor to be considered, one which many of us are prone to forget, is the satisfying of the client, which is really quite a large factor, and should always be considered, and if any particular material or appliance which is not absolutely inferior strikes his fancy or appeals to his taste it is

advisable to specify it, even though it is not just what you would recommend yourself, as, after all, he is the person to be pleased. In starting out to write specifications it must be remembered that the specification writer should have a very thorough knowledge of all materials and methods of construction, both in the field and in the shop, without which it is very hard to write knowingly and clearly on the subject, so therefore the candidate for specification writing should have some experience superintending construction before attempting to write specifications.

Theatre Decoration at the New Capitol

By *A. Lincoln Cooper*

Instructor of Mural Decoration in the New York Evening School of Industrial Art

THERE is a peculiar problem presented in determining upon and executing the style of decoration to be followed in a playhouse of such magnitude as the new Capitol Theatre now building in New York City—the theatre that is to be the largest playhouse in the world.

Upon going over the various plans, details, etc., the writer's first consideration was the vastness of the interior, as a style of decoration, no matter how effective in a smaller and more intimate structure, would in all likelihood miss the warmth and responsiveness so vital in such a large ensemble.

The ideal choice of a style and scheme under such conditions gives rise almost to the paradoxical—they must adequately enfold an expanse of interior and at the same time counteract the coldness that is bound to result from area.

To accomplish this the architect with the decorator decided upon a color scheme combining warmth and brilliancy. The general tone will be a *café au lait*, a shade pre-eminently beautiful when enriched with gold and is especially adapted to the Empire Period style of decoration with its small delicate details. This scheme will bring to the whole a warmth and responsiveness so essential to an abode of amusement, while the general style will avoid any fragmentary effect so likely to develop in an area of such large proportions. The scheme contemplated is admirably responsive to both the architect and decorator, and the difficulty of treatment is greatly reduced by the Empire style, in which the variety of form permits a wide range of choice.

In deciding upon the *café-au-lait* color scheme, with ornament enriched with gold and glazed to strike a harmonious chord, the nature of the woodwork of the large interior was fully borne in mind. The woodwork is of a rich old walnut and antique oak, especially treated, like the old Georgian rooms, in a manner whereby the mellow tones and finish bring out the natural glory of the wood. In striving to harmonize the rich effect of the woodwork with the color scheme, and still maintaining a distinct virility of each, the desired effect is one akin to the feeling felt in gazing upon an old master. The hangings of velvet and silk have been chosen with great care in order to blend in a manner to avoid the slightest semblance of discord.

The dominating consideration in determining upon the Empire style of decoration was the decorator's desire to carry out the architect's conception of dignity and to depart from the academic coldness which prevails in certain periods, and to instil instead a finesse of character that at once breathes a more intimate environment, at the same time avoiding an appearance that might suggest the simple process of transplanting. Not that the writer makes any

pretense of attempt in developing a new style, but that full cognizance of the exceptional subject—the largest theatre in the world—demands a treatment that will encompass the full purpose behind such a structure. The theatre depends pre-eminently upon psychological effects, and to genuinely aid in properly meeting this conception the structure itself, and particularly the interior decorative scheme, must vie with the stage picture in engendering, and maintaining the audience in, a receptive mood. To this conception the interior decoration of the new Capitol Theatre will be dedicated.

The grand manner and splendor of Louis Quatorze has passed, and instead of the stateliness and court beauty thus effected, the Empire, with a severity to harmonize with a vast subject, gowned in rich velvets, will strive for an artistic reality rather than a fictitious royalty.

It is rather premature to present a full description of the whole decorative scheme, and this article is only intended to convey a faint general idea as to what is contemplated. The theme of the mural paintings is still in the embryo, but it can already be confidently stated that these too will harmonize with the whole and convey a symbolical conception appropriate to the purpose and utilization of the unique structure.

The grand auditorium is one of great dignity, breathing an atmosphere and giving a profound impression of vast spaces, and it probably represents the culmination of the architect's extensive experience and knowledge, for Mr. Thomas Lamb, the architect, brings to the theatre, to which he has devoted a specialized line of thought, an abundance of ideas rich in conception and unsurpassed in execution.

Some of the special features of the theatre that might be of passing interest, although not directly involved in any description of the interior decoration, are a wonderful organ, artistically constructed and designed to fill the vast auditorium with music of a nature surpassingly supreme; rest-rooms for both sexes, designed and appointed in a way to meet the respective tastes for luxury, beauty, and comfort.

It would be a lack of appreciation to omit mention, in connection with the decorative scheme and the interior furnishing, of the valuable aid given by the vice-president of the holding company, whose suggestions have uniformly indicated a natural genius for interior decoration; also Mr. Lamb's happy choice of his supervising architect, who has shown great ability in directing and carrying out this big project. In summing up the entire operation, the writer feels that it would have been a very hard task indeed to form a better organization of contractors and tradesmen to carry out the intent and spirit of the work.

Garden Architecture and Sculpture

By *H. A. Caparn*

From a Lecture Given at the Metropolitan Museum of Art, March, 1918

GARDEN architecture and sculpture really contain four subjects, each one of which might occupy an article or be expanded into an interesting book. The four would be "Architecture in Formal Gardens," "Architecture in In-

formal Gardens," "Sculpture in Formal Gardens," "Sculpture in Informal Gardens." But they are all akin, and it appears to me best to attempt to trace some of the characteristics they have in common.

I use this word garden in its more extended sense, customary on the continent of Europe, where it seems to describe any space treated for beauty and used for pleasure. Here we usually think of a garden as a more or less

restricted place made primarily for the display of flowers; but there is no fundamental difference in the principles of design of flower and flowerless or of large and small gardens; the difference is one of scale or proportion and consequently of feeling.

Garden architecture does not include the house, palace or château, or other building of which the garden is an adjunct or extension, an outdoor room or rooms, in fact, but only those structures within the garden that serve some of its purposes, wholly utilitarian or mainly sentimental, entrances, pergolas, arches, shelters, summer-houses, grottos, gazebos, tool-houses, temples, pools, and cascades. Garden sculpture would include statuary, hermæ, fountains, well-heads, and even seats and vases. Some of these, of course, contain both architecture and sculpture, fountains, for instance, often massively built and elaborately sculpted.

You will observe that not one of these things has been brought into garden design excepting to supply some real need, to fulfil some use of which it is an elaboration or justification. It is not necessary, for instance, to explain or defend the use of shelters in gardens of all times and countries, and the uses of vases, seats, pools, and well-heads are

too obvious to be mentioned. None of them was introduced for mere whim or caprice, or without knowing why, as has often been the case in gardens of later styles and periods. Sculpture is the most attractive of all garden ornaments, and this is surely use enough, and when it is well done and well set it has a vitalizing power that nothing else can equal. It is the stone inhabitant of the garden, its presiding genius, but sometimes, unfortunately, its clown. We need not wander very far to find examples of this. The hermæ, those heads on stone posts, decidedly popular over here, have not yet gotten rid of their imported look and seldom appear to be really naturalized. It is difficult to look at them and forget the Fourth Avenue sidewalk where they seem most at home, however charming they may be in their native climate. They were originally boundary posts which the Roman farmer used to amuse himself by carving with the head of Hermes, the god who presided over termini or boundaries, and which the garden sculptor, always on the alert for new motives or subjects, elaborated so ingeniously. I wonder how long it will be before the American farmer amuses himself by whittling the tops of his fence posts into the likeness of his favorite president, whether of a ball team or of the United States?

To consider first gardens in the formal or architectural style or manner as by far the oldest and containing beyond comparison the most numerous and best examples of garden architecture and sculpture, it would be consistent to speak not of the architecture in them, but of the buildings, for the entire garden is a work of architecture, an unroofed extension of the building on which it depends, and not differing in principles of design from one of its apartments. Its structural lines are straight or radial curves; its boundaries are walls or hedges, vegetable masonry; its rows of trees or bushes, clipped or unclipped, correspond to columns or statues.

Its flowers, foliage masses, and vines are not structural, but decorative vegetable carpets, tapestry, or curtains. It is the character of the masonry, carpentry, and sculpture to be so conspicuous as to dominate the garden as a rule, so that the foliage and flowers, whether formalized or not, seem to lead up to it and become a setting or investiture.

It was in the Italian gardens of the Renaissance, themselves the descendants of the Roman gardens of ancient times and the prototypes of the great gardens of other



Cain's lioness, Central Park, New York.



Villa Albani, Rome, coffee-house.

countries, that architecture and sculpture attained their highest development. All the conditions contributed to this perfection, including the very limitations of climate and growth. Nowhere and never has good architecture and sculpture been so easy to obtain as in Italy during the Renaissance. Nowhere does the kind of vegetation that best lends itself to architectural effect grow more varied and luxuriant. No such greens and textures unite with cheerful submission to the shears of the topiarius as in the box, the ilex, the bay, the orange, the lemon, the euonymus, and the cypress. But, on the other hand, the sultry summers are unkind to lawns, and flowers were few until modern explorers had brought the floral riches of the temperate zones to our front yards. So the designers put their strength into the exploitation of their best resources, their architecture and sculpture, stone and vegetable. Their gardens were, in reality, compositions in architecture, animate and inanimate, with water in every variety of motion to vitalize them and counteract by its unceasing sparkle whatever sense of gloom the towering masses of dark foliage might suggest. Flowers added color, gayety, and spice but were not really essential. But the stonework, the water, and the all-embracing evergreen leafage were the garden, so that it was good in winter as well as in summer, and now, after the lapse of centuries, these gardens in the maturity of their growth, and excepting where the ravages of time and depredation or of repair have gotten the upper hand, are often, perhaps, better than they ever were, for their settings or foliage frames are now mature and in their proper proportions. When they were new these gardens must have looked as raw and undeveloped as any new garden nowadays, than which, as a rule, nothing looks more raw and undeveloped. Such contemporary garden pictures as we have go far to confirm this supposition. Here is the essential difference between the old and modern gardens. The latter are imagined commonly as places for the display of flowers, and often the structure



Frejus monument, Turin. A style of garden architecture for illustration, not necessarily for imitation.

or composition takes a secondary place or is lost sight of, so infatuated are we by the fascination of modern flowers, and the garden ceases to be a work of art and becomes a nursery.

Garden buildings are mostly shelters, taking every form from the rustic summer-house to the temples of Love or Diana, those beautiful circles of columns supporting a roof so popular with garden designers, especially the French, or the elaborate coffee-house of the Villa Albani at Rome, or the temples of Æsculapius, or buildings under any other name that gave an excuse to put up a costly and glorified rest-place or shelter from the sun or occasional showers. The pergola is of this kind, too, a sheltered walk, and when well done, its own excuse for being, but, unfortunately, done too much and too badly so that these massive and naked structures tower like stark skeletons to the ruination of many an otherwise good garden scene. The first condition of a pergola, like any other structure, is that it should look credible, have an apparent reason for being; it should not only support the vines for which it exists, but it should lead from somewhere to somewhere else. Once in a while you see one of these things that reminds one of a corridor taken out of a building or a tunnel from a railroad and dropped casually in a forty-acre lot. It is of interest to mention that we have a fairly good claim to consider the pergola an American development, although, as you no doubt know, there were plenty of them in the villa gardens

of ancient Italy, and they have been built in one form or another ever since. You can see in many an American farmyard a grape-arbor made of a row of uprights supporting horizontal pieces and connected by braces, often not even planed or painted; and this is the simplest form of pergola and the easiest to build, the prototype of these structures which we have developed, perhaps, more commonly and elaborately than any one else.

These are the usual structures of architectural gardens of all periods. But there were



Villa Lancellotti, Frascati. A glorified retaining wall.



Vue aux buttes, Chaumont, Paris. A building of the Temple of Love type.

others very common in the gardens of the Renaissance, more interesting as illustrating the point of view and the sense of humor of the times than their architecture. Such are those mentioned by Montaigne, who visited the Villa Pratolino, six miles from Florence, which was made by the Grand Duke Francisco I for the famous Bianca Capello, who afterward became grand duchess. He describes a grotto where the movement of water made music and harmony, causing various statues to move and doors to shut, animals to plunge in and drink, and other devices. He says: "In one moment the grotto can be filled with water. Every chair squirts it over you, and fleeing therefrom up the steps of the villa, they can, if they choose, start one thousand jets and drench you to the skin." These secret fountains still remain in many Italian gardens. They were useful, not merely for practical jokes, but for moistening the stonework heated by the sun. There was also a representation of a fortress besieged by cannons and arquebuses shooting water and other devices. There is a letter extant from an architect named Traballesi written to one of his ducal patrons under date of May 21, 1587. He says: "I have a model for a jest to be constructed in a pond. In the midst of the pond to make a little island of timber with a bridge in the form of a raft where one could go to eat or for pleasure, and when eight or ten people are gathered together thereon, the said raft descends to the bottom, leaving the said abandoned ones upon the island. Next, the island itself begins to descend, and slowly sinks, for the greater torment of those who find themselves upon it. When it is gone a certain distance it slowly begins to ascend again, and the bridge also returns so that the people should be able to go into the sunshine and dry themselves." Whether this thing was ever constructed or not I do not know, but the mere fact that it should have been proposed sheds an interesting light on the point of view, and especially on the notions of humor, of the period. It was probably not built, for the reason that it would only have worked once, for the news of the ducking of the first party of poor wretches would

travel so fast and far that it is unlikely that a second party could be found to walk into the trap. But perhaps garden owners of those days, as now, were troubled with uninvited visitors who used their opportunities for depredation when they thought no one was looking, and these were but means of deserved retaliation. In speaking of garden eccentricities in sculpture mention should not be omitted of the enormous giant representing the Apennines constructed by Giovanni de Bologna at the foot of which stands the Villa Pratolino above referred to.

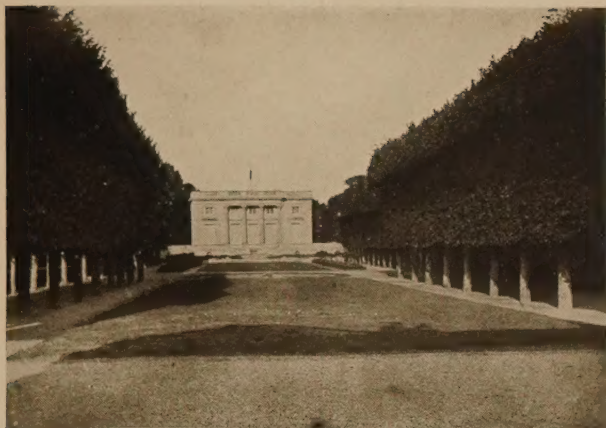
One of the differences between the gardens of the several nations appears in the use of architecture and sculpture. The basic principles of their use do not differ, but in Italian gardens buildings and statuary were much more numerous than in France or England; and in Italy and England they have a different and more intimate effect than in the great expanses of the grand style which found its climax in the works of Le Notre. This is due, not to differences in the style of architecture or sculpture, but to the sense of enclosure or separation from the outer country sought by the Italians and English, while the typical

French gardens are extended as far into the landscape as possible. At Versailles in midsummer evenings the boundary on the east is the palace, on the west the setting sun, beyond comparison the most magnificent garden ornament in the solar system, and the emblem of Louis XIV for whom this composition was created.

In the informal or natural style or manner, with its phases of the gardenesque, naturalesque, and so on, called on the continent of Europe the English garden, because it was invented in England in the beginning of the eighteenth century, the use of architecture and sculpture seems to vary with the taste or caprice or misunderstanding of the designer. No art has passed through so many stages of whim and misunderstanding as this. Yet it is an art of incorrigible popularity, for almost every front yard and public park in the country is done in this manner. That most of them are not done well is not the fault of the man-



Bassin d'Apollon, Versailles.



Le petit Trianon, Versailles. "Green walls and cornice of foliage."

ner. Of the multitudes who have professed and practised it, few seem to have understood its real purport and meaning. Its first notable professor, Kent, seems to have looked on buildings as of secondary importance, to be suppressed rather than displayed. Many of his successors, on the other hand, used them as main objects in their compositions, Chinese pagodas, Indian or Greek temples, or sham ruins. After many vicissitudes these things went out of fashion because they were felt to be false in sentiment. The elder Olmsted in one of his park reports expressed his regret that it was necessary to put buildings into parks, and when one contemplates some of the structures they put up in his parks it is not difficult to understand him. The fact is that this style is not dependent on buildings for its motive or inspiration. Informally composed scenes can, and very often do, exist without any building visible in them, and there are many admirable examples in our New York parks, Central, Prospect, and Morningside. When a conspicuous building is put into an informal scene it dominates it, and the scene becomes a mere setting instead of existing for its own sake. Such a building is the Temple d'Amour at Versailles. An excellent example of a building which becomes part of the landscape instead of overpowering it, created for the landscape rather than for itself, is the familiar bridge over the lake at the southeast corner of Central Park, and there are many of similar feeling in the parks of Boston. As for the sham ruins, once so popular, perhaps the most notable is in the Parc Monceau at Paris, which, like many other bad things in the Paris parks, is so well done that one excuses it as not really a sham after all.

The subject of sculpture in informal settings is still in a nebulous state. Statuary set anywhere except in an architectural composition usually looks as though it had been left there to be called for later. We have plenty of examples of good sculpture placed like this, as, for instance, the Farragut monument in Madison Square. The extreme popularity of sculpture in this country, exemplified in the vast quantity of local politicians in perfectly good bronze and soldiers in granite, worth, in these times, at least six dollars a cubic foot, makes one appreciate the force of the Biblical

injunction against the manufacture of graven images and regret that the artistic taste of those who thus commemorated the heroism of the dead was often not equal to their devotion. The worst of these things is that many of them occupy the best sites in town. Our city fathers are so impressed by sculpture that they will hasten to deliver their most precious open spaces to any one who will provide so many tons of stone or metal fashioned into the semblance of a human being; and these sites are chosen, as a rule, not for any reason of appropriateness, but because they are so conspicuous, thus, as it were, not merely admitting an inappropriate thing but advertising it in double-leaded type. People are not really awakened to the fact that their public open spaces are all precious, and many of them historic, bound up with the development of the community, and that they should be very much more careful than they have been in the past to avoid cluttering them with carved encumbrances badly designed and set. We have so many precious open spaces, and nowadays so much good sculpture as well as bad that must be put in them, that it is a pity not to give more attention to the matter of setting instead of being satisfied merely to dump it in a place where the public eye cannot escape it. It is just as difficult or impossible to lay down rules for this kind of art work as for any other, but it may be worth while to point out that

in informal design, just as in formal, sculpture should be placed at a focal point, which may be emphasized, framed, or even created by the proper investiture of foliage. Another way of saying this would be to point out that a statue will make a focal point no matter where you put it, and that its

setting should recognize this and lead up to and frame the statue. The statue should not look too natural, that is, one should not attempt to create the illusion of a stag or a lady or gentleman scantily clad, or not at all, taking a constitutional among the trees amid the rigors of our northern climate. A statue should look, not like a man, woman, or animal, but like a statue of one, and to do this it should have a base, an artificial thing to raise it off the ground. The absurdity of the cast-iron deer, still occasionally seeming to promenade the lawn, is due not merely to its being put



Flower and foliage architecture, Tuileries Garden, Paris.



Luxembourg Gardens, Paris. This is the kind of thing the gardener does to the sculptor sometimes, even in Paris.



Gounod monument, Parc-Monceau, Paris. Designed for a park setting.

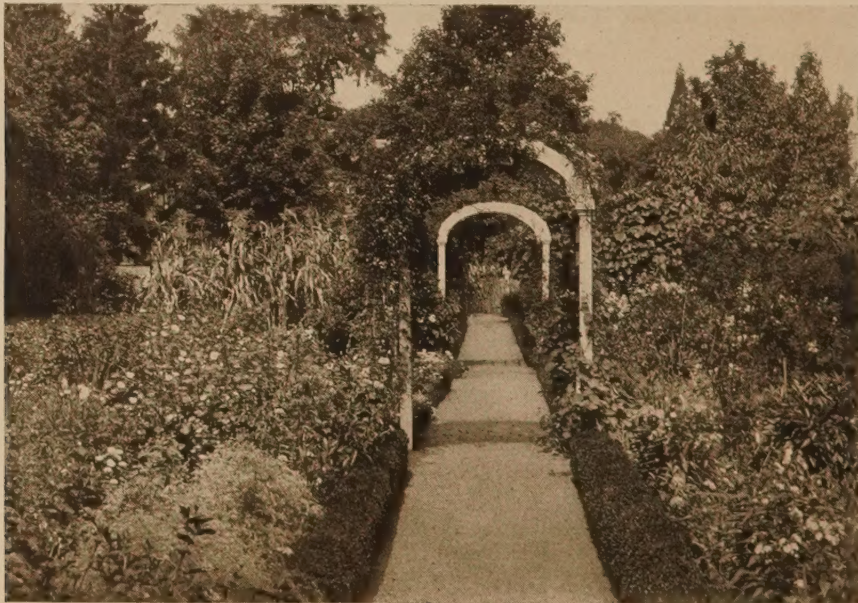


Daudet, Champs-Élysées, Paris. Garden sculpture designed for informal setting.

nowhere in particular, but much more to its impossible naturalism, its attempting to look like something that it could not be, and its lack of visible means of support as an animal of metal, not of flesh and blood.

In this hasty and necessarily very incomplete sketch of a very wide subject I should not omit mention of that most popular of all collections of garden architecture and sculpture, the cemetery. Surely many of us must feel that these places are usually very depressing, not from the presence of the dead, for this proximity of those who have run their course and achieved the great adventure should not arouse gloom but reverence, but because of the ugly-

ness and disorder. Some of the monuments are good in design, many passable, but it is, as a rule, difficult to get an impression of any of them as a work of art because of their multitude and the confusion of it all. The trouble is partly in their number, partly in the design, still more in the inordinate size of many trying to overtop their neighbors, but chiefly to their lack of setting, of an enfolding mantle of foliage to mitigate their glare, their restlessness, and their incongruity. Cemeteries of this kind where greenery predominates and the beauty of the scene has first consideration are becoming much less rare than formerly and are, as they should be, proportionately popular and prosperous.



Garden architecture in its simplest form, Salem, Mass.

Editorial and Other Comment

War Memorials for the Times

MANY of the old ideas of celebrating a triumph of arms, of a great national uplift, of a return to peace after sacrifices and untold hardships, seem paltry and selfish in these times. The triumphal arches of Rome and of later times are, after all, the most impersonal and least intimate of memorials. They may impress future generations, and mean little or much according to their knowledge of history and a capacity to respond to the spirit of past heroic times, but as monuments, either worthy or mediocre, they are manifestations chiefly of contemporary art and design and celebrate too often the individual, not the nation. One comes to look upon them merely as a part of civic adornment, not as living, speaking expressions of human feeling and sympathy.

The great army of granite soldiers that stand as sentinels in so many towns and city squares, flanked by old cannon and pyramidal piles of cast-iron shells, are but lifeless and, alas! too often grotesque caricatures of the real spirit of the men in blue and gray they were intended to commemorate. How few, indeed, of all the figure monuments in the country erected in memory of our old army and navy are worthy of their purpose! In New York we look with pride upon the sturdy upstanding figure of Farragut in Madison Square, and on the spirited mounted Sherman at the entrance to the park. But they are rare exceptions to the generally commonplace and trivial things that have been erected in the name of patriotism. This war has taught us to look in new ways upon men, upon nations. It has brought into close relations the remotest elements of civilization, directed attention as never before to the utter helplessness of millions of mankind in the face of a great World War. Instead of spending millions of dollars in monuments, in statuary and arches, let us devote the sum to more useful and helpful purposes. Let us endow and build hospitals or add wards to hospitals for the service and ever-ready use of our soldiers and their families when they may be in need of medical and surgical care. Let us build schools for their children—schools in which the flag shall be ever in evidence and the words of men who have made our nation great, of the men who have expressed our national ideals from the beginning. Let us build town halls and libraries where records of the war may be kept as a reference, with a roster of the men who wore the khaki or the blue, with a star for those who gave their lives and make the halls to serve the purpose of meeting-places for the veterans of all our armies where they may keep up old associations and help to spread broadcast the spirit of sacrifice and of love of country that they stand for. There should be perpetual club-houses for all men who have been in the service, for those who have served either at home, over there, on the water, anywhere that duty has called them. Let us too build public baths and swimming-pools. A recent writer, Mrs. Adeline Adams, wife of the well-known sculptor and president of the National Academy, makes these suggestions, that seem to us quite in keeping with our new ideals:

"In place of memorial forms to be condemned or discouraged, expert knowledge has a rich variety of shapes to suggest; and as our sprightliest critic has somewhere said: 'Without variety, as without vision, the people perish.' A well by the wayside; a bell in a tower; a shrine in a grove or

garden or church; a town clock; a beautifully designed bronze standard for a flagpole, either by itself or as an adjunct to a hall or a schoolhouse; the fountain in its myriad shapes of life and laughter; the inscribed stone seat under a stately village tree; the newly planted avenue of trees fitly inscribed; the boundary stone; a gateway or a church door; a sun-dial or even a bird-bath; the monumental bridge; the water-gate—every one of these forms and many more, simple or magnificent, may well be made commemorative of the hour and its storied meanings. Some of those who died for us were young, blithe creatures; we would have their covering rest lightly upon them, and their memorial, whatever and wherever it is, not without some sign of young joy upon it. And whether the monument be for youth or age, for the group or the individual, its true worth will be revealed, not in size, cost, or elaborateness, but in fitness, imaginative quality, spiritual content, and also, not to be forgotten, the well-educated workmanship of both artist and artisan."

We made great strides during the mobilization of our army in the effort toward a real Americanization of our polyglot population. A neighborhood club for soldiers where their families could also meet and be entertained would do more than all the local oratory that might be uttered to amalgamate our people and do away with the present dangers of racial segregation and differing languages. There could be no better way to further Colonel Roosevelt's most devoutly to be wished patriotic ideal that this country shall be a country of one language, and that language *English*. We need something bigger than merely abstract art ideas for the few in our war memorials. Let us have them humanized and made to minister to human needs and human aspirations.

The Cost of Building Materials

A RECENT interview with a large Philadelphia contracting firm revealed the fact that a new record had been established in the cost of building materials.

"The records show that in 1866, immediately after the close of the Civil War, cement was worth \$2 a barrel, calcined plaster \$2.50 a barrel, Roman cement \$6 a barrel, fire-clay \$2.50 a barrel, lime 30 cents a bushel, plastering hair 30 cents a bushel, and fire-brick \$48 a thousand.

"Current prices for similar materials prevailing throughout 1918 and largely at the present time are: \$3.27 a barrel for cement, \$4 a barrel for calcined plaster, \$3 a barrel for fire-clay, 44 cents a bushel for lime, 30 cents a bushel for plastering hair, and \$47 a thousand for fire-brick. There are no quotations on Roman cement, which, with most other imported cements, has been out of this market for a number of years.

"In 1916 cement sold at \$1.65 a barrel, calcined plaster at \$2.05 a barrel, fire-clay at \$1.50 a barrel, lime at 20 cents a bushel, and plastering hair at 28 cents a bushel. No figures are available for fire-brick, as the firm in question did not handle them in the period in question.

"It will be noted that 1918's prices are in many instances from about 30 to 60 per cent higher than those prevailing in 1866, and in some cases 100 per cent above those for 1916, the year before the entry of the United States into the World War.

"It is a curious coincidence, however, that plastering

hair sells to-day at the exact figure prevailing in 1866—30 cents a bushel."

And yet there is a nation-wide urgency to go on with general building. It seems absolutely necessary to the solving of some of the vital and insistent unemployment problems. The greater problem seems to be the one of finance, of securing building loans, and "there is no likelihood of an adequate investment demand existing until our Liberty Loans are over and our Liberty Bonds are digested." A writer in the *New York Sun* advocates the providing by the United States Government for a sufficient amount of the next loan to be allocated throughout the country where the demand for new building is urgent, and the same reloaned in such centres on building loans under the direction of regional loan commissions to be appointed by the government.

"If billions are loaned to foreign countries; if mortgage loans are made to farmers; if so-called revolving funds of millions are created to make good deficits in operation of railroads, for the stabilization of the market value of Liberty Loan Bonds and such purposes, is it too much for the government to adopt prompt and effective measures to relieve this critical situation?"

Opportunities for American Architects in South America

IT may be of rather special interest to some of our professional readers to know that there is a constant demand for copies of this magazine from various parts of South America. A number of buildings published in our pages have been made the subject of comment in the leading South American architectural magazine. The closer relation between North and South America that the war has brought about may well open the way for our architects to find a new and profitable field of endeavor. It is a widely known fact that one of our well-known firms has undertaken extensive developments in China. Here to the south of us, easily accessible, is a field of great promise.

For a Fitting Memorial to Our Soldiers—An Admirable Suggestion from the New York Chapter of the American Institute of Architects

WHEREAS, The Fine Arts Federation is to appoint a committee to consider the form to be taken by a permanent memorial to commemorate the valor of the American soldiers and sailors in the World War, and

WHEREAS, The realization of such a memorial, of whatever nature, is of vital importance to the community in that it should be a true expression of the sentiment of the citizens of New York as to form of memorial deemed most appropriate:

Be it Resolved, That the New York Chapter of the American Institute of Architects present to the Fine Arts Federation, for its earnest consideration, the following programme and plan of procedure:

That a committee be appointed to institute a preliminary competition of ideas or suggestions to be open to all citizens residing or maintaining an established place of business in Greater New York.

That their ideas or suggestions be presented in one of the following mediums:

- A. In letter form.
- B. In sketch form, a perspective and plan.
- C. In plastic form, a model and plan.

A location or plot plan to be submitted if the idea be in the form of a structure.

As an essential part of this preliminary competition, a first prize, with possibly other prizes, should be awarded.

That the judgment of this competition of ideas be rendered, after public exhibition, by a jury composed of representative citizens. It is suggested that the jury of award be composed of fifteen members, three members appointed by each of such organizations as the New York Chamber of Commerce, the Merchants Association, the Fine Arts Federation, the Society of Arts and Letters, etc.

That the idea awarded the first prize in this preliminary competition be made the subject of a final competition.

That the winner of this final competition be awarded the commission to execute the memorial.

In conclusion, the New York Chapter feels that in this manner can best be obtained the opinion and the sentiment of the citizens of New York as to the form of the memorial.

Original Drawings at the Library

THE New York Public Library announces a most interesting exhibition of original drawings from the collection of J. Pierpont Morgan.

"The technical element in such an exhibition of drawings should appeal particularly to the art student. How the masters handled pen, chalk, and brush in making studies and sketches offers the student suggestion and stimulation and example. Here he may see how Rembrandt scratched and scrawled with the pen, or put in big broad washes, or brushed light lines in landscape subjects (similar to his etched ones), according to need and mood, and always with a sufficiency appropriate to the subject in hand. Or how Raphael used sharp yet sinuous lines, limited in number; the thing said, he stopped. Again, how methods are varied by the facile Guercino, or by Annibale Carracci, who made one drawing carefully in strong masses with red chalk, and another in light pen outlines and washes. How in some work all is delicacy, evanescent ultimately into weakness, while in other all is firm and vigorous, a quality eventually leading, in some artists, to exaggerated poses and hypertrophied muscular development. Some made more finished drawings: Claude and Poussin in stately landscape compositions; Correggio and Guercino (in red chalk drawings of *putti* and other subjects) and Picart foreshadowing the methods of the nineteenth-century professional lithographer; others again, in brush-washes of one or two tones, heightened with white, akin to the chiaroscuro method in engraving. There is wide variety in the use of wash. Bramantino, Annibale Carracci, Pietro Testa, G. B. Tiepolo, and others applied it lightly to give body to freely indicated outlines. Tiepolo did this with a particularly noteworthy lightness and dash, his shadows flickering in a remarkable suggestion of ever-moving life. Somewhat heavier shadows and tones appear in some work by Palma Giovane or Pordenone. Polidoro, Parmigiano, Vanni, and others carry the method quite to a finished effect, and it is the reproduction of such work that we find in chiaroscuro prints."

There are drawings by artists whom one has hardly known other than in their engravings or etchings—Bega, Berghem, Du Jardin, Campagnola, Potter, Dusart, Bloemart, Breenbergh. There's opportunity to see the actual original sketch made by Ostade for one of his etchings. Or one may trace a foreshadowing of the aquatint tones of Goya's "Caprichos" in some of the wash drawings of Domenico Tiepolo.

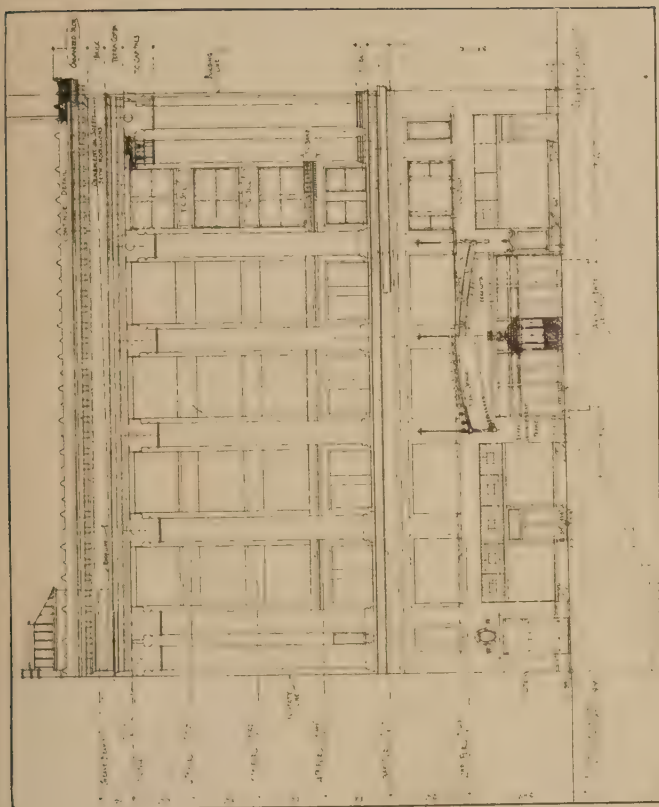
The exhibition, which has so much to offer and to so many, will remain on view in the print gallery (room 321) from the 1st of February until the end of April.



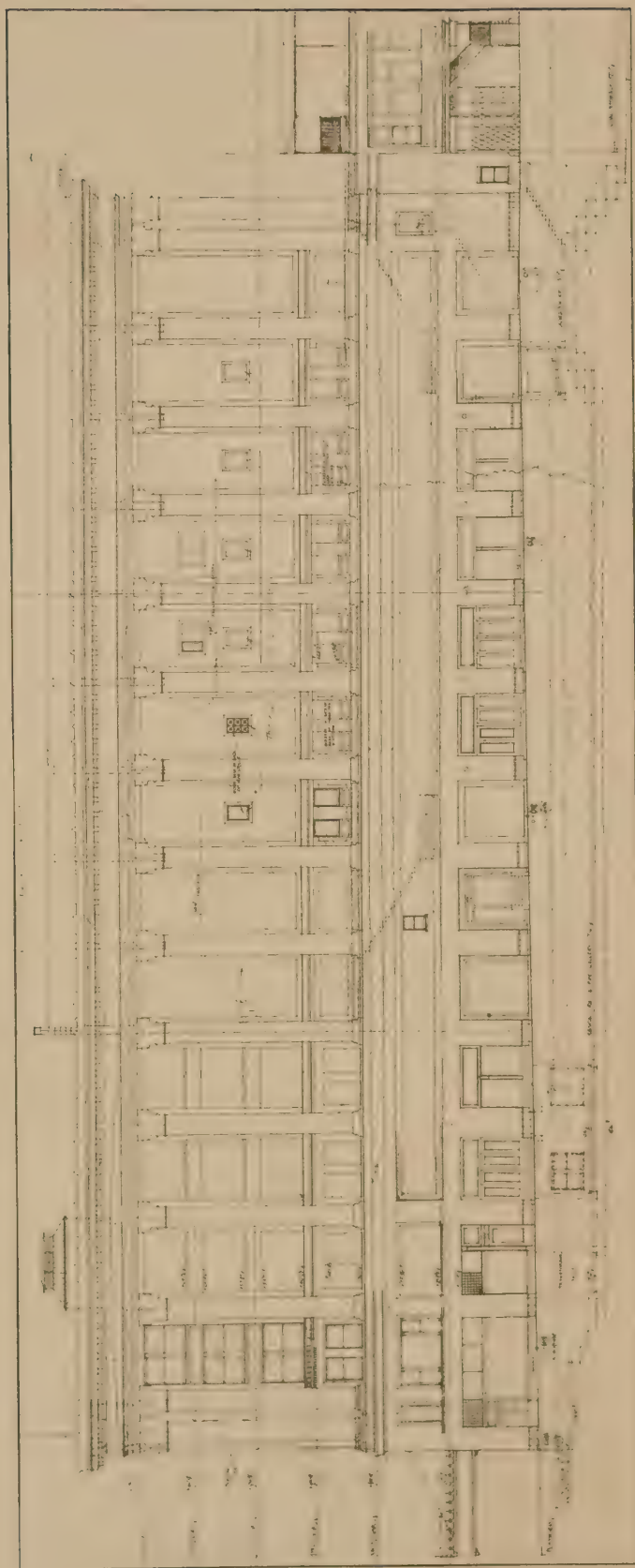
GIUSTI GARDENS, VERONA. A COLONNADE OF TREES.



THE GRAND CASCADE, ST. CLOUD, NEAR PARIS.



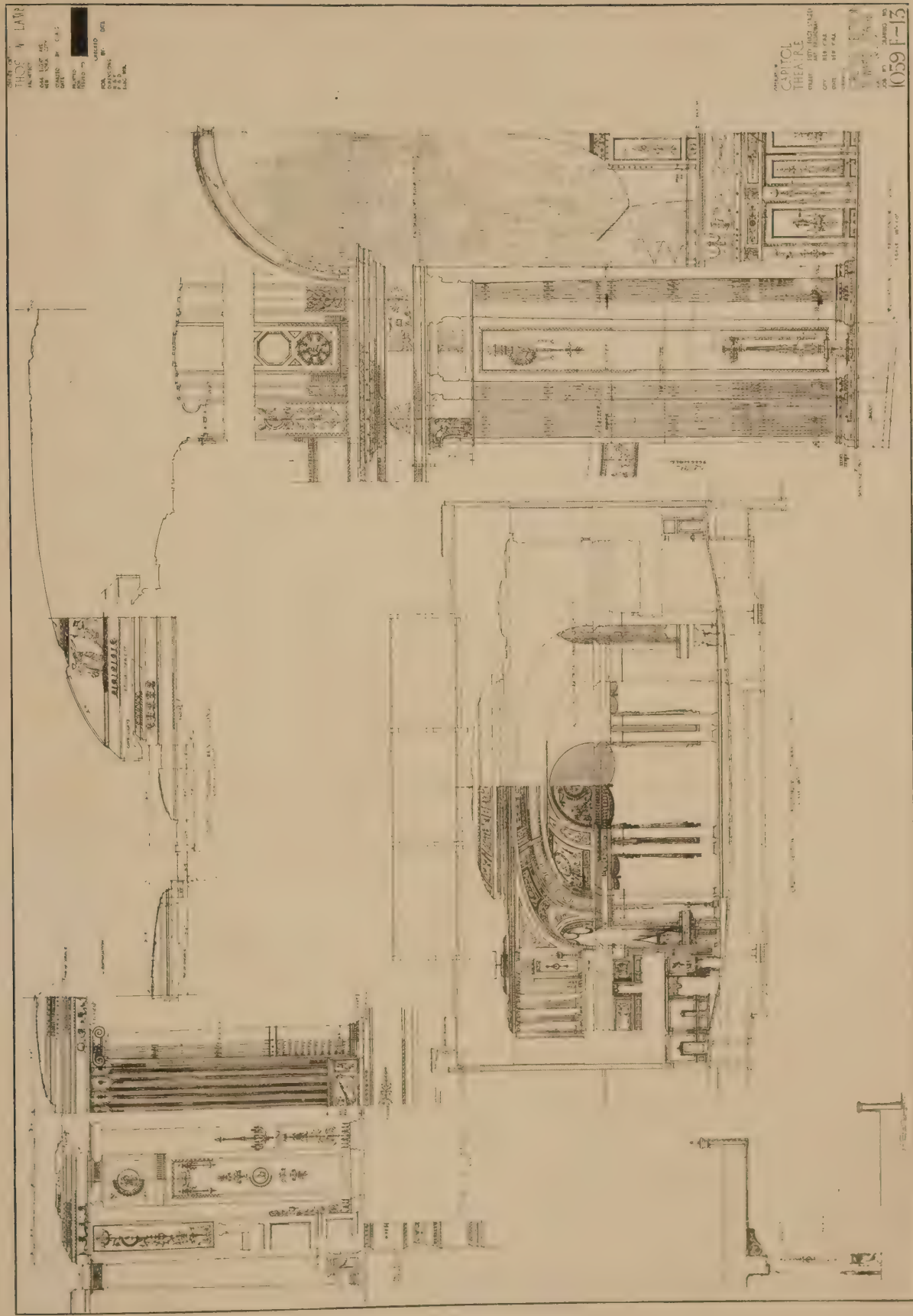
BROADWAY ELEVATION.



WEST 51st STREET ELEVATION.

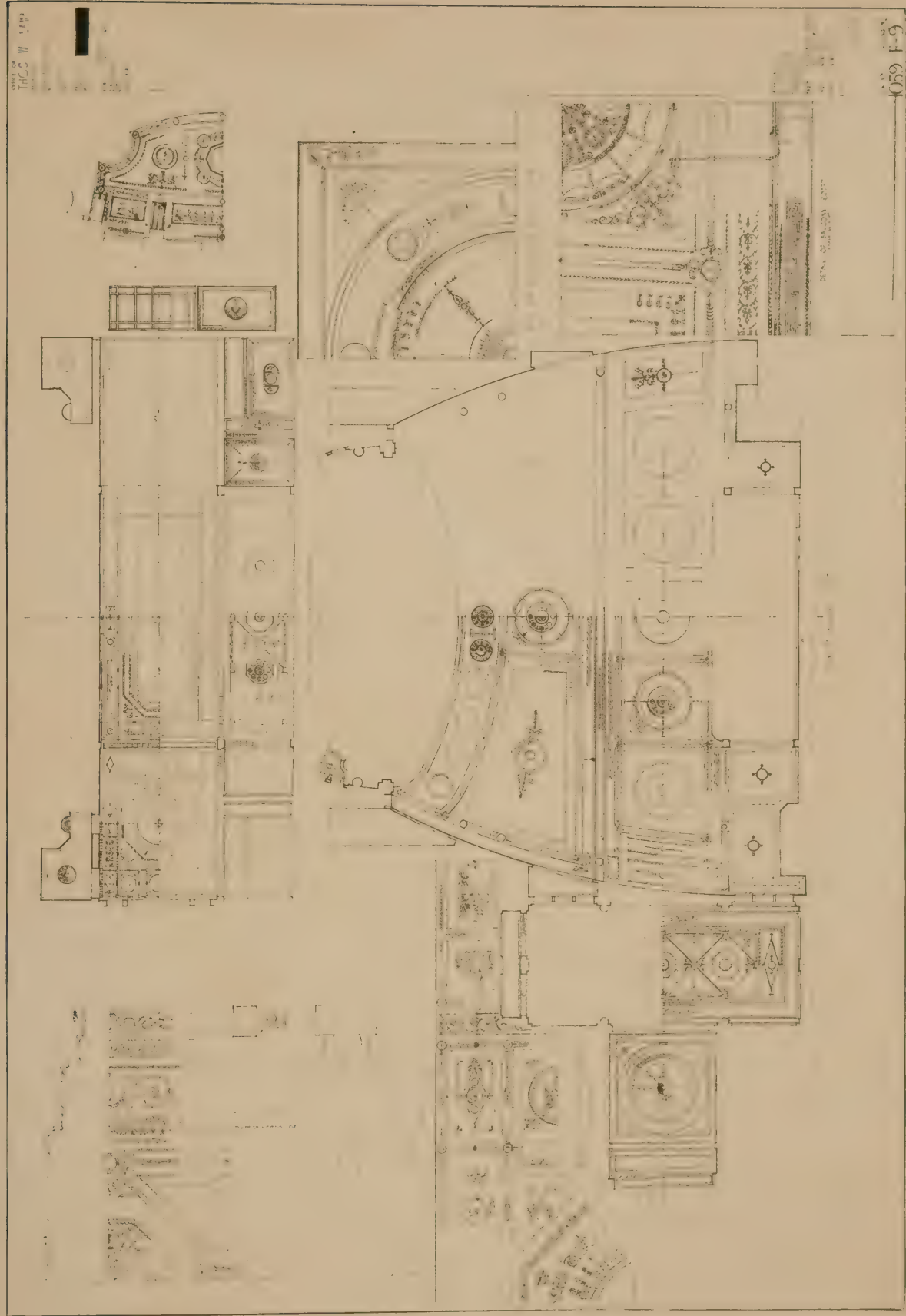
DESIGNED BY THOMAS W. LAMB, ARCHITECT, 111 NASSAU ST. N.Y.C.

THOMAS W. LAMB, ARCHITECT.



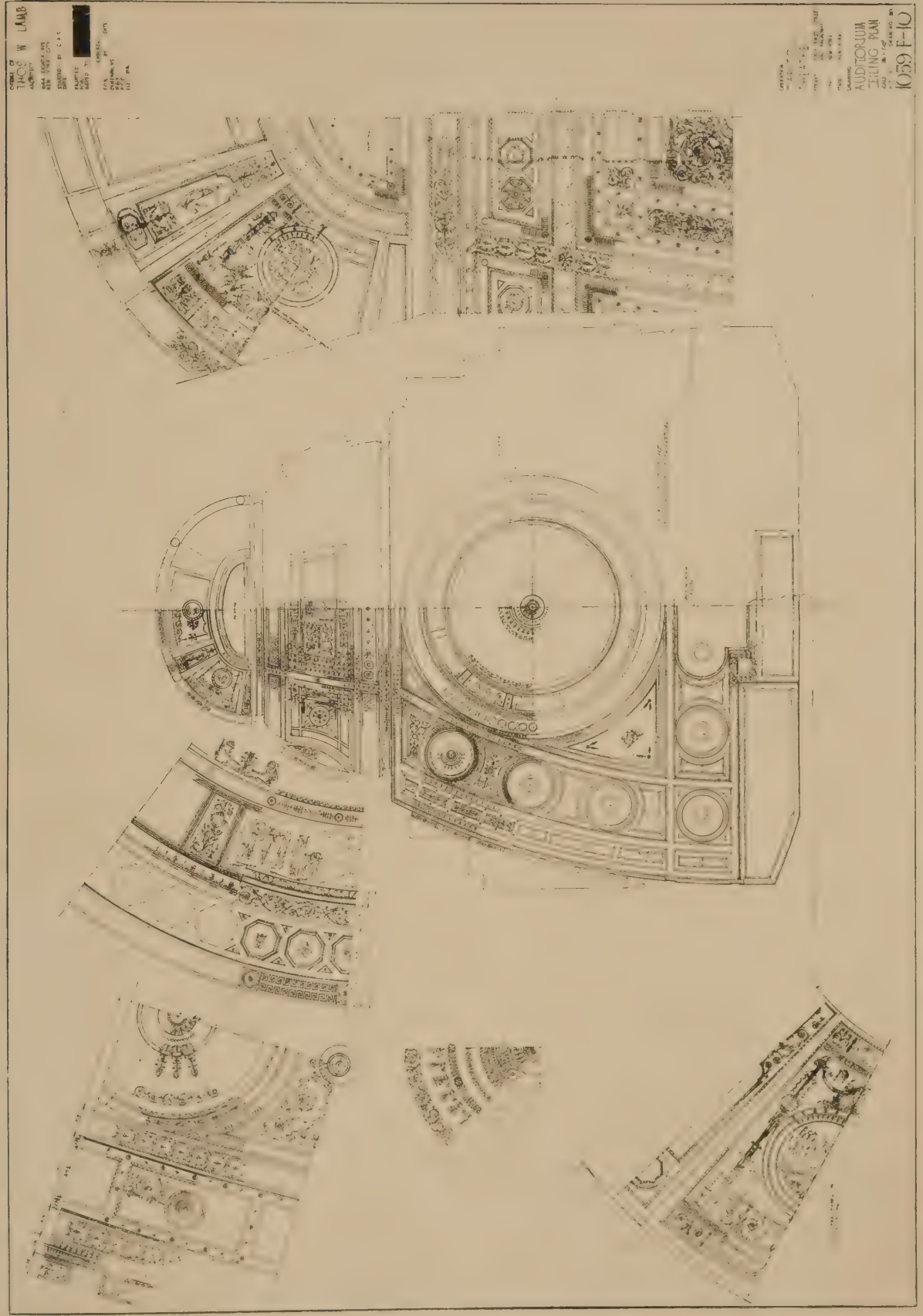
CROSS SECTION, TOWARD STAGE, CAPITOL THEATRE, BROADWAY AND 51ST STREET, NEW YORK.

Thomas W. Lamb, Architect.



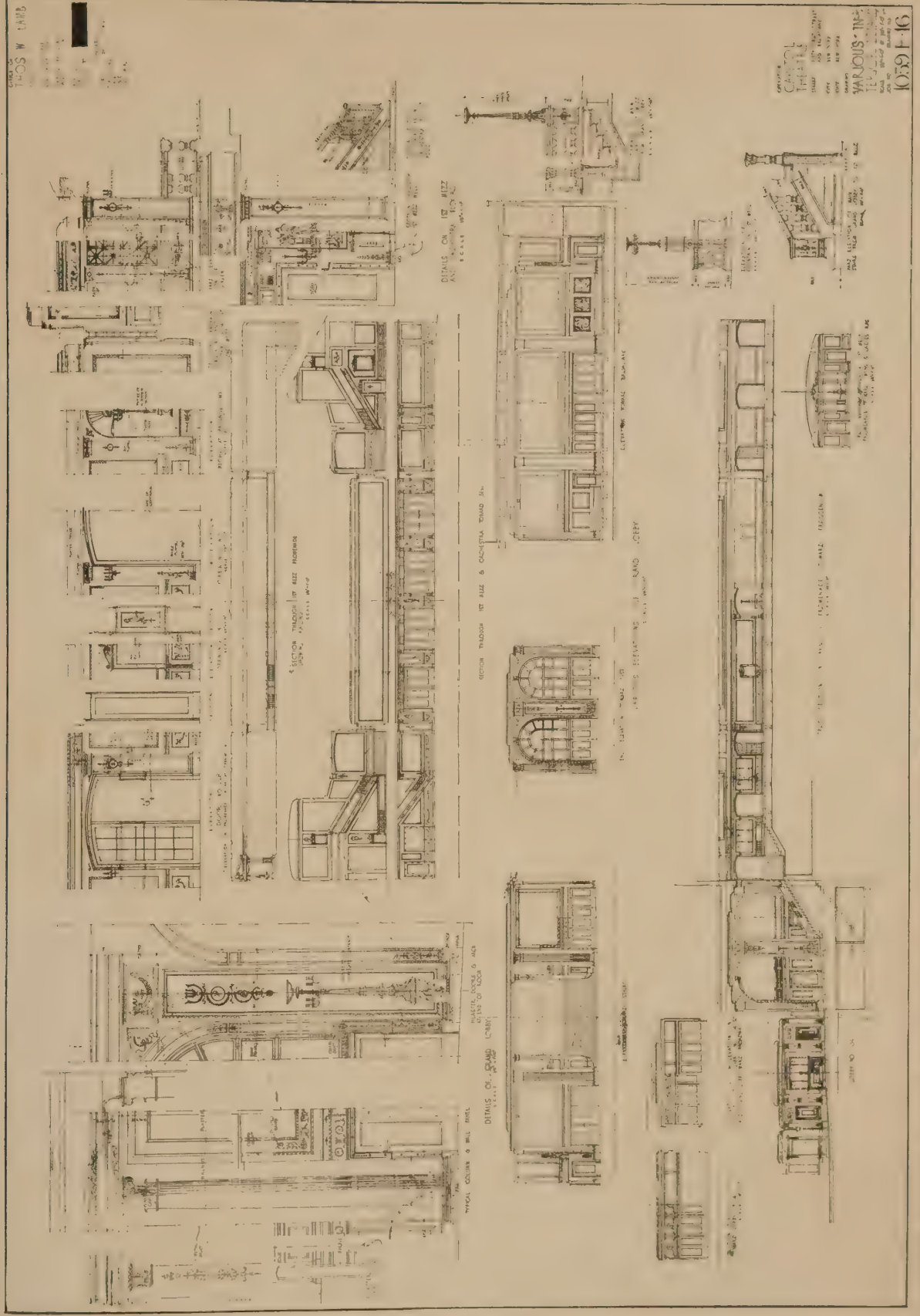
DETAILS OF SOFFIT, CAPITOL THEATRE, BROADWAY AND 51ST STREET, NEW YORK.

Thomas W. Lamb, Architect.



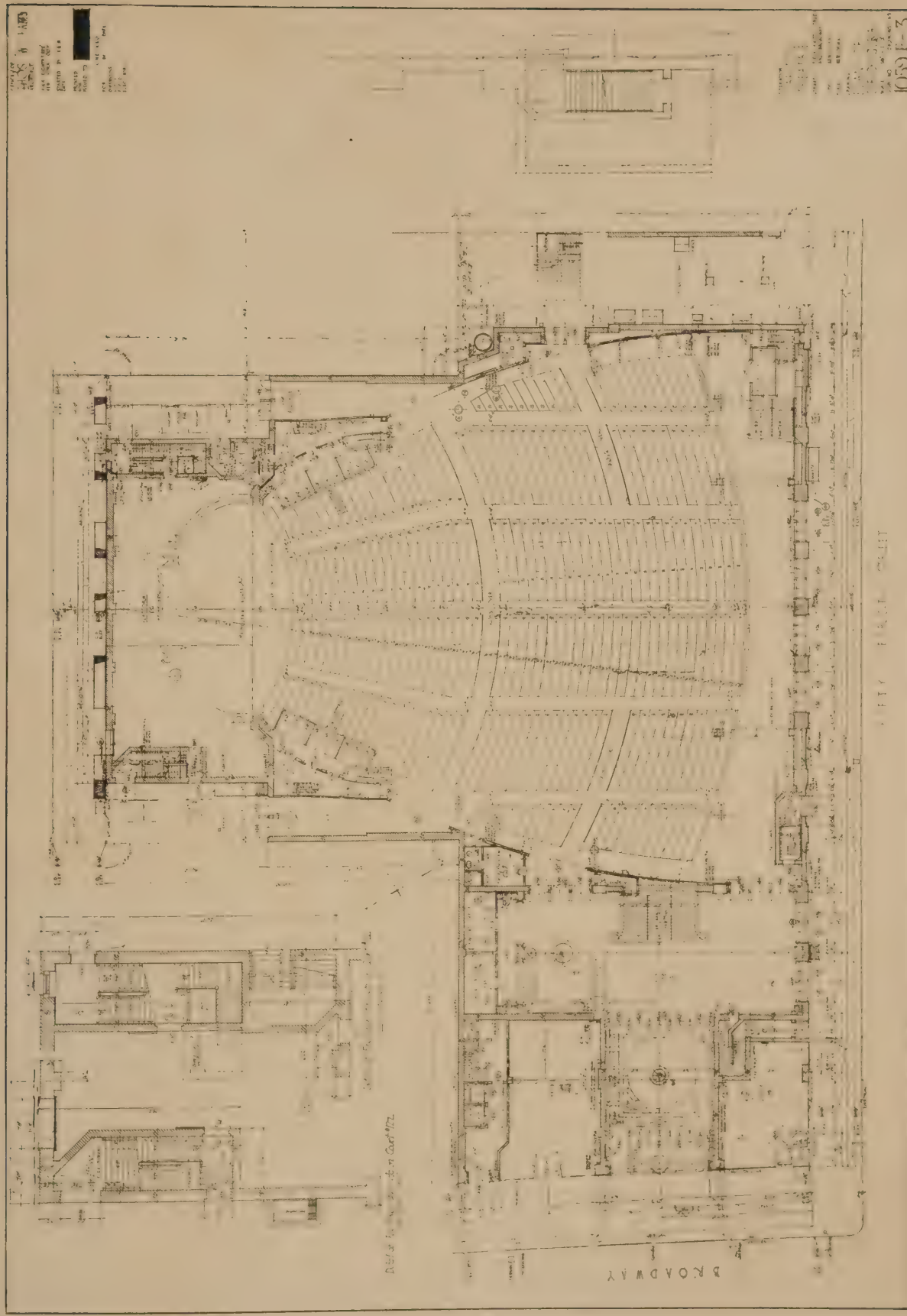
AUDITORIUM CEILING PLAN, CAPITOL THEATRE, BROADWAY AND 51st STREET, NEW YORK.

Thomas W. Lamb, Architect.



INTERIOR DETAILS, CAPITOL THEATRE, BROADWAY AND 51ST STREET, NEW YORK.

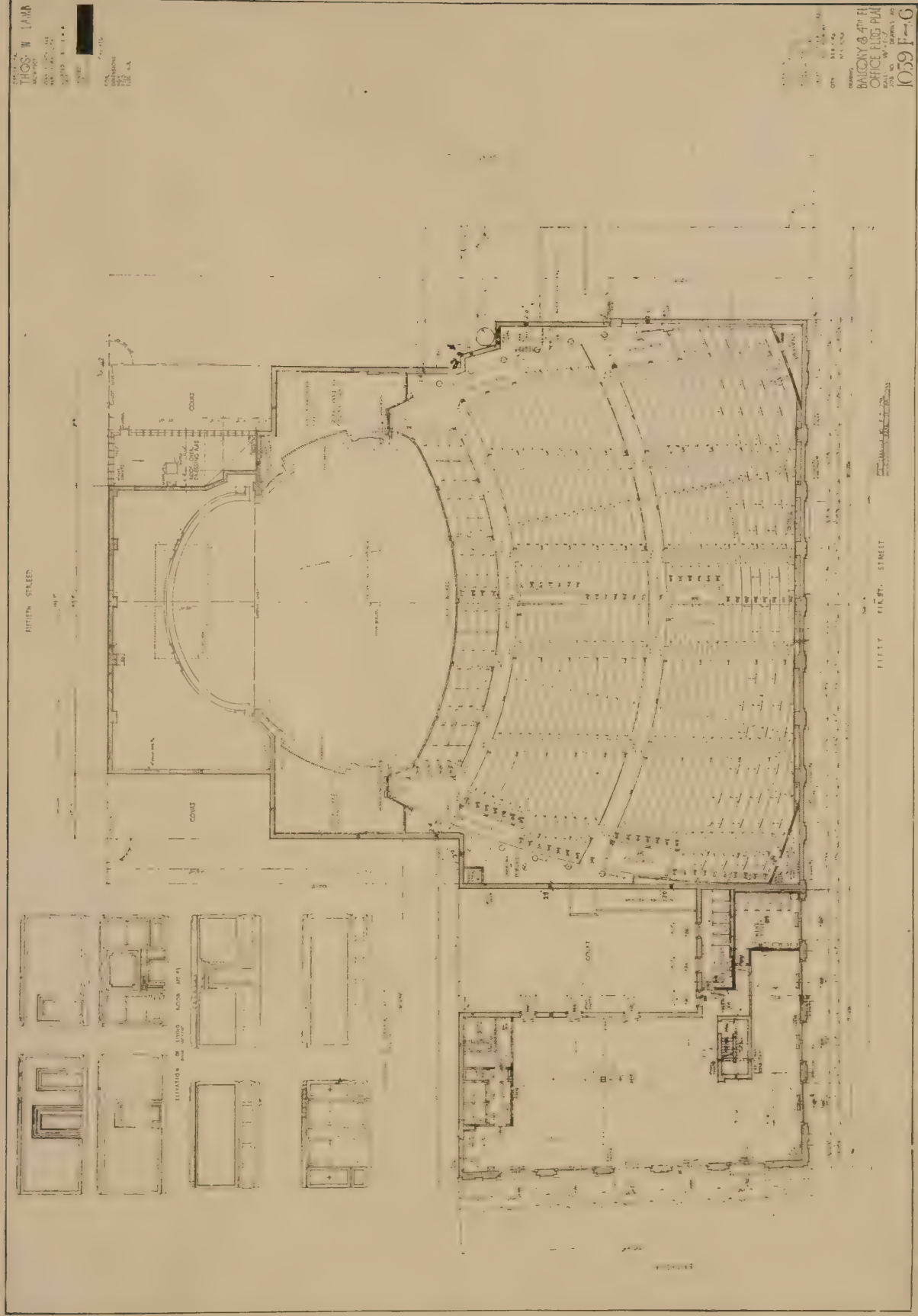
Thomas W. Lamb, Architect.



PLAN OF ORCHESTRA, CAPITOL THEATRE, BROADWAY AND 51st STREET, NEW YORK.

Thomas W. Lamb, Architect.





PLAN, BALCONY AND FOURTH OFFICE FLOOR, CAPITOL THEATRE, BROADWAY AND 51ST STREET, NEW YORK.

Thomas W. Lamb, Architect.



NEW TOWN HALL, MILFORD, CONN.

Tracy & Swartwout, Architects.



REAR, NEW TOWN HALL, MILFORD, CONN.

Tracy & Swartwout, Architects.



ENTRANCE-HALL AND STAIRCASE, NEW TOWN HALL, MILFORD, CONN.

Tracy & Swartwout, Architects.



COURT-ROOM.

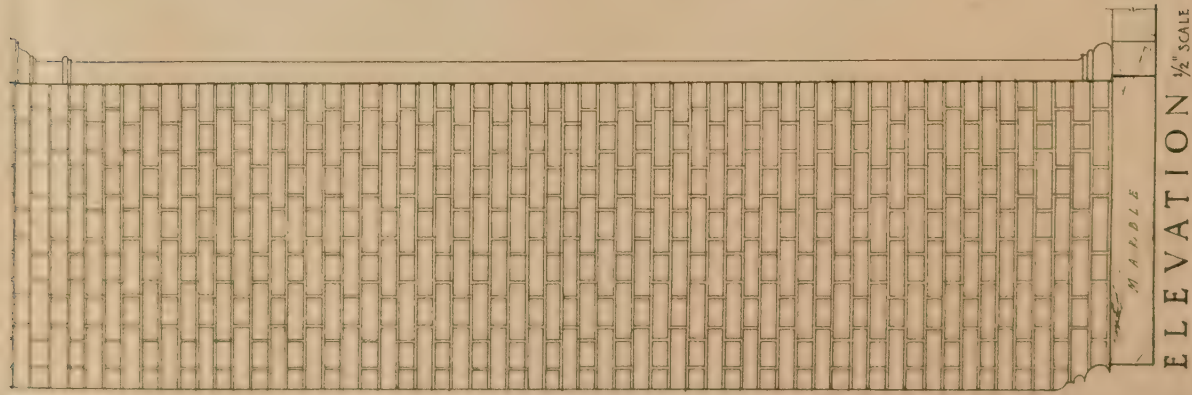


AUDITORIUM.

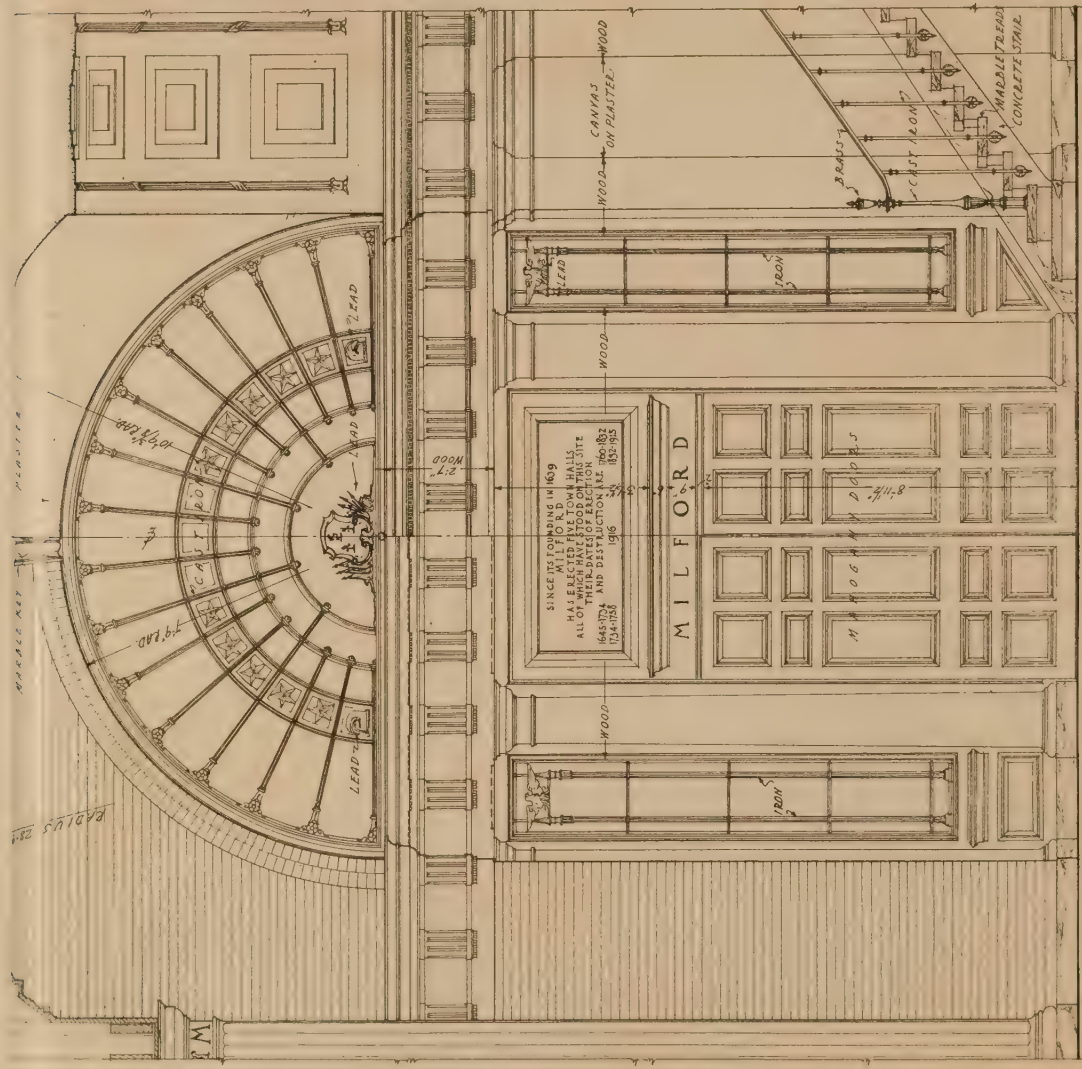
NEW TOWN HALL, MILFORD, CONN.

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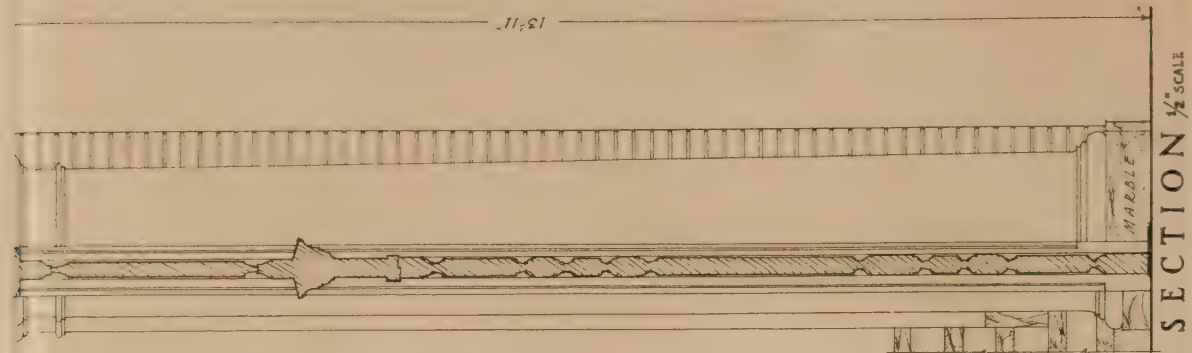




ELEVATION 1/2" SCALE



EXTERIOR 1/4" = 1'-0" INTERIOR
ELEVATION OF MAIN ENTRANCE DOOR



SECTION 1/2" SCALE

"ARCHITECTURE" SERIES
OF
MEASURED DETAILS

MILFORD TOWN HALL
MILFORD CONN.
TRACY AND SWARTWOUT ARCHTS

FEBRUARY · 1919 ·
DRAWN BY EDWARD BAUER

The Park Avenue Viaduct, New York City

STREET traffic in every direction from Grand Central Station, New York, will be greatly relieved by the new Park Avenue viaduct, now nearing completion. The only other north and south bound avenue for traffic within the Borough of Manhattan that has not either a surface-car, elevated line, or both, is Fifth Avenue. The traffic conditions on Fifth Avenue have become so greatly congested that the improvement of Park Avenue at 34th Street, in conjunction with the construction of the Park Avenue viaduct opening up another free avenue of traffic, was vital and is even considered by the proper authorities as of enough importance to have been a military necessity, had the war continued.

This viaduct begins at 40th Street and is carried over Park Avenue, overgrade across 42d Street, and leads to an elevated roadway around the west side of the station, connecting with upper Park Avenue at 45th Street.

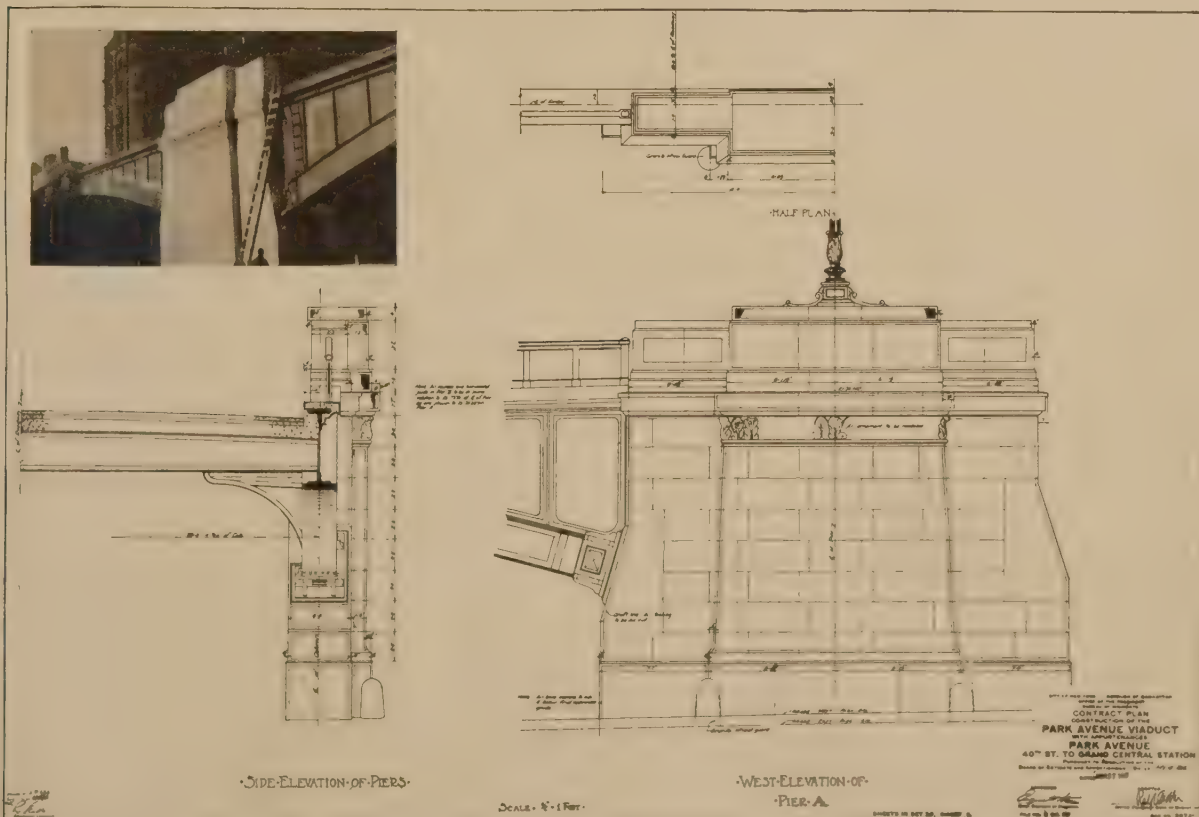
In designing this structure, conditions led to the unusual expedient of using steel cantilever girders shaped to appear

as arches. Aesthetic considerations called for arches, but as the site is over a network of rapid transit subway structures it was not practicable to provide abutments for true arches. The arched cantilever construction offered a convenient solution.

The idea of designing the steel spans as cantilever beams, but yet making them appear as arches, grew out of the physical conditions of the site. A true arch design would have required space for its abutments in the street and in the Grand Central Terminal Building that could not be spared, and would have involved practically impossible foundation conditions. The girders forming the northerly half of the north span are supported on columns located at the northerly building line of 42d Street,

extending back over these columns to frame into the existing steel work in the Terminal Building. The other girders will be supported individually on two steel columns and that part of the girder between them. The girders over the piers

(Continued on page 44)



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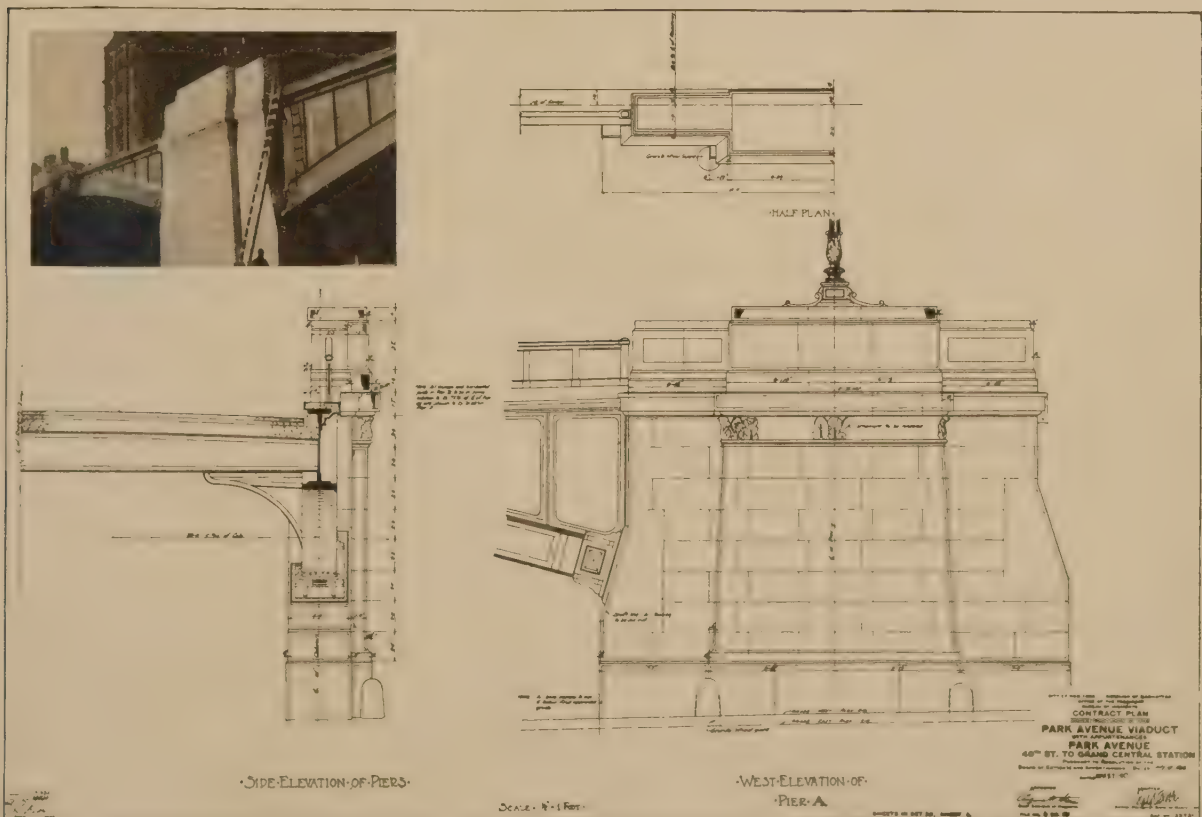
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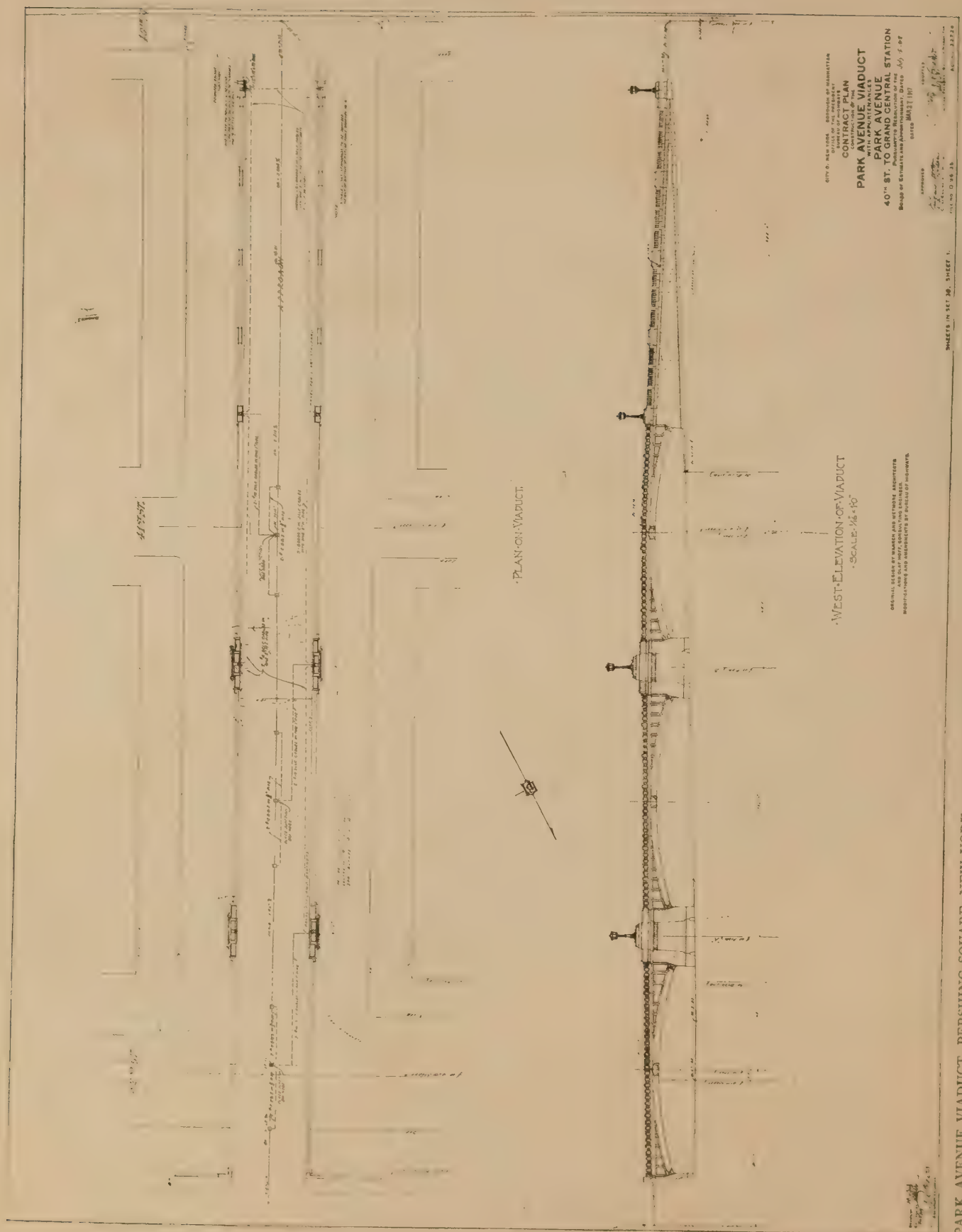
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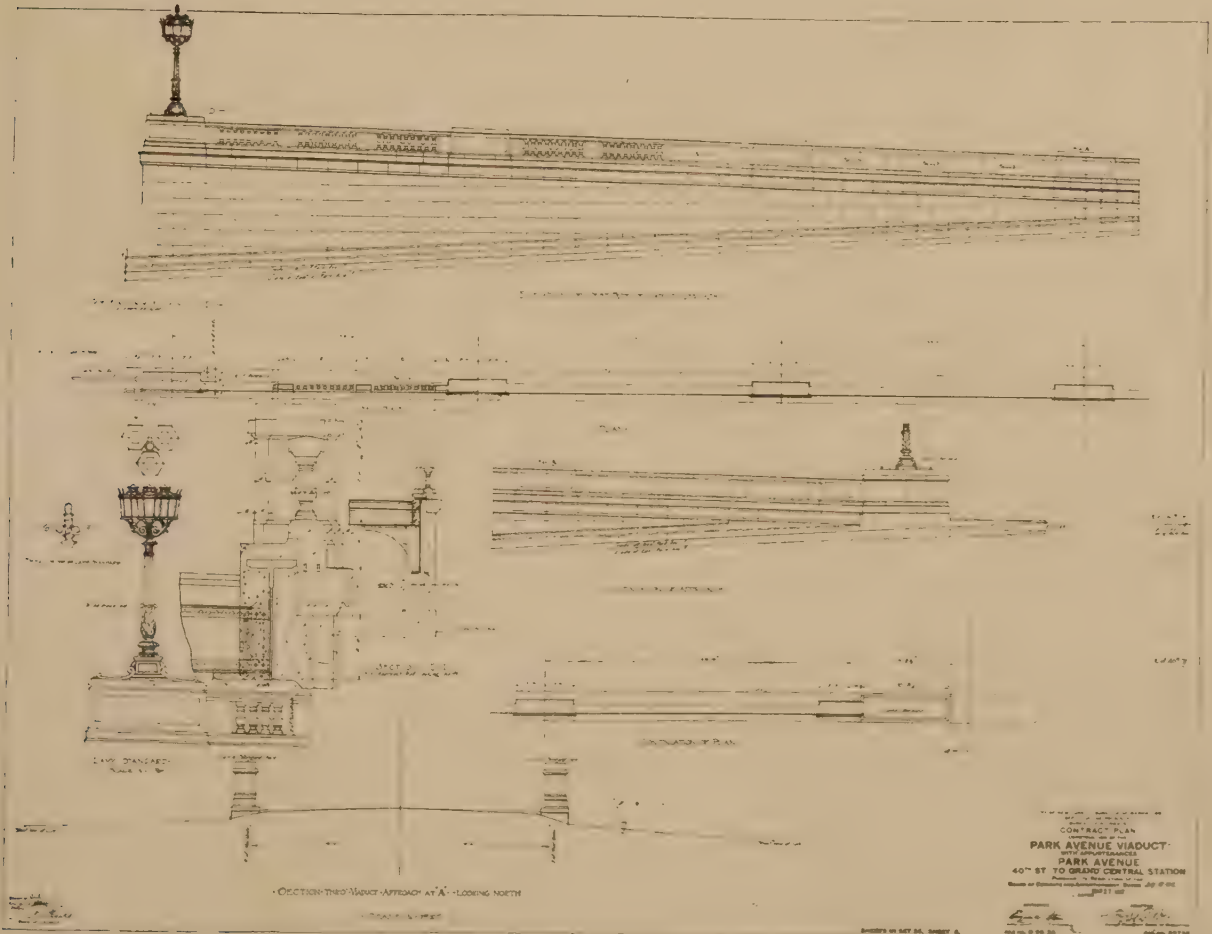
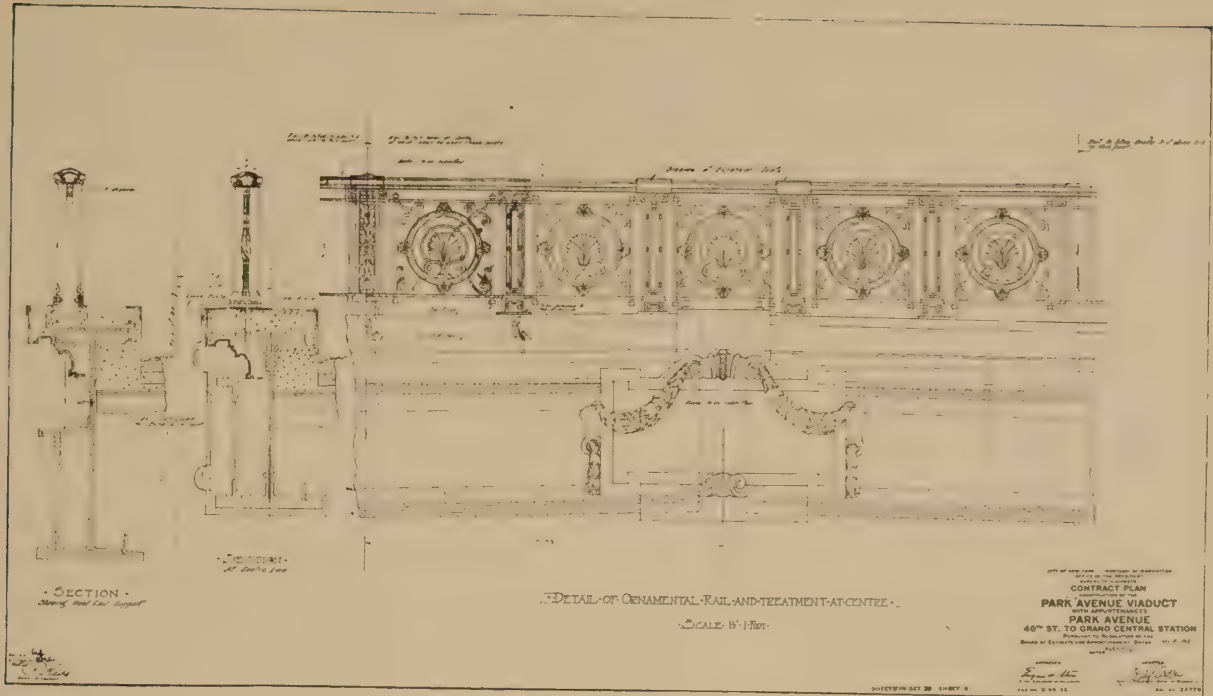
The idea of designing the steel spans as cantilever beams, but yet making them appear as arches, grew out of the physical conditions of the site. A true arch design would have required space for its abutments in the street and in the Grand Central Terminal Building that could not be spared, and would have involved practically impossible foundation conditions. The girders forming the northerly half of the north span are supported on columns located at the northerly building line of 42d Street,

extending back over these columns to frame into the existing steel work in the Terminal Building. The other girders will be supported individually on two steel columns and that part of the girder between them. The girders over the piers

(Continued on page 44)







DETAILS OF PARK AVENUE VIADUCT, PERSHING SQUARE, NEW YORK.

are the largest and heaviest, being 136 feet long by about 12 feet deep at the supports, and weighing 73 tons each. Difficulties as to clearances on the Pennsylvania Railroad made it necessary to route the cars via Morristown, then back to Frankfort Junction across the Delaware, and back to Trenton via the Belle-ordre branch. The girders were unloaded from the cars at Greenville onto floats and towed to 19th Street and East River, from which point they were hauled on trucks, pulled by fifty-two horses to the site of the viaduct. All of the girders have been fabricated and shipped as units, and erected



without field splicing. The meeting ends at the crown of each "arch" will be joined by a horizontal pin through slotted holes, allowing a maximum expansion of 2 inches. The structure is an interesting engineering problem.

Architecturally the viaduct was designed to harmonize with the Grand Central Terminal, and it is gratifying to note that the original design by Warren & Wetmore, Architects, and Olaf Hoff, Consulting Engineer, though modified by the Chief Engineer of Highways, Department of Public Works, has produced a beautiful and satisfying work of truly monumental character.

The Great Work Done by the Construction Division of the Army

THE Construction Division of the U. S. Army is one of the most effective construction organizations that has ever existed. It is believed this statement will go unchallenged, so it will not be necessary to prove it. This organization is composed almost entirely of men from civil life. They are the men who have tunnelled our mountains, bridged our streams, built our sky-scrapers, constructed and maintained our shops and industrial enterprises and public utilities and railroads. In two years they will have performed three times the work required by the Panama Canal, that took ten years to complete. They have done this under the most trying conditions of labor, material, and transportation, and at a reasonable cost.

This organization is still intact. It still possesses \$3,000,000 worth of mechanical construction equipment, with the operation of which it has had experience. Its labor is nearly finished. Within a few months all of this will be disbanded. To allow it to disintegrate while great con-

struction demand exists would be an economic crime. If this organization with its equipment could take hold of the rebuilding of France as it took hold of the building of our cantonments and terminals, etc., it should be of the greatest possible assistance to French constructors, and would be appreciated.

The majority of these men would be willing to go to France if they could continue their present organization and be permitted to work by the methods that have proved so successful. Co-operation of French engineers will be necessary. At the invitation of the French engineering societies and of the French Government, a representative body of American engineers is now in Paris conferring with them regarding maintenance and construction of all kinds of reconstruction work for the devastated areas. When that delegation returns to this country and advises as to the exact condition of affairs, we should be ready to take instant action along these lines.

Book Reviews

ARCHITECTURE AND DEMOCRACY. By Claude Bragdon. Alfred A. Knopf. 12mo. \$2.00 net.

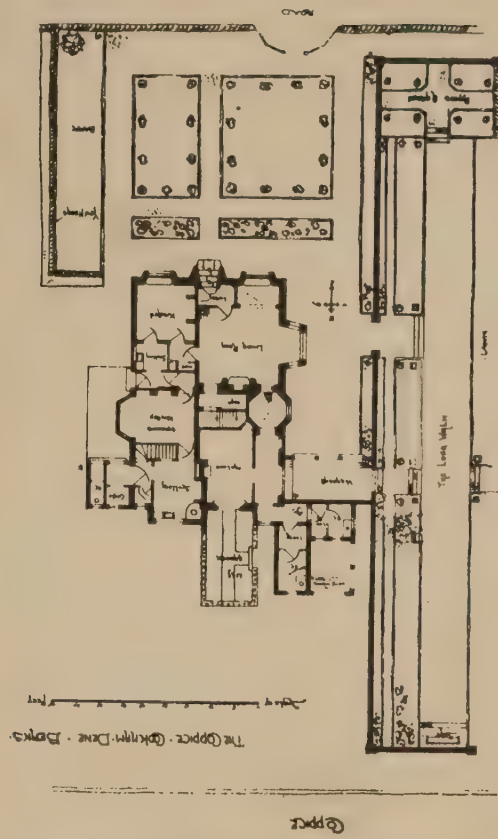
Whether you quite follow all of Mr. Bragdon's theories and comments or not, you will at least find him a stimulating and intriguing writer, with an individual point of view based on a foundation of sound architectural training. Like so many others, he has been observant of recent tendencies.

"With the modern tendency toward specialization, the natural outgrowth of necessity, there is no inherent reason why the bones of building should not be devised by one man and its fleshly clothing by another, so long as they understand one another and are in ideal agreement, but there is in general all too little understanding and a confusion of ideas and aims. To the average structural engineer the architectural designer is a mere milliner in stone, informed in those prevailing architectural fashions of which he himself knows little and cares less. Preoccupied as

he is with the building's strength, safety, economy, solving new and staggeringly difficult problems with address and daring, he has scant sympathy with such inconsequent matters as the stylistic purity of a façade or the profile of a moulding. To the designer, on the other hand, the engineer appears in the light of a subordinate to be used for the promotion of his own ends, or an evil to be endured as an interference with those ends."

WE are pleased to acknowledge the receipt of a copy of the book giving the interesting history of the growth and development of the *Detroit News*. The life story of a newspaper that has achieved the success of the *News* makes a mighty interesting record.

The *News* has one of the most complete and up-to-date buildings in the country. Alfred Kahn was the architect, and he has created a building of marked individuality and appropriateness for its purposes.



T. H. Lyon, Architect.

"THE COPPICE," Cookham Dene, Berkshire, England, stands on the top of a hill overlooking the river Thames. The plan followed is one which has found favor in England of late years. In houses of the smaller class the tendency has been to substitute for a number of rooms one large living-room which serves also as an entrance-hall, with perhaps also a small private parlor. A sense of spaciousness was obtained in the house illustrated by placing the staircase behind the fireplace instead of making it a feature in the living-room. An attractive corridor connects the living-room with a little parlor, from which the veranda is approached through double French casement doors. This veranda opens into the two gardens, which are separated by a flint and brick wall built in true Berkshire style. A caretaker's cottage is included under the main roof, with a connection to the house through the serving offices. The cost was about ten thousand dollars.

The Stamford Children's Home

By Harry Allan Jacobs

THE artist, whether he be architect, sculptor, painter, or musician, generally gets his inspiration from some idea which forms the nucleus for his completed picture. When asked to design the new Stamford Children's Home, there happened an extremely pleasant episode in my life which helped me to create the new building.

Every one has read Jean Webster's charming little book "Daddy Long Legs," and nearly everybody has seen the play. One can never forget the squalid orphan asylum, little children dressed alike in gingham, with the unhappy look, living in surroundings without love, and scolded from morning until night by a soulless matron.

It was just about this time that I completed an orphan asylum at Pleasantville on the cottage plan, which we hoped had done away with the abuses and shortcomings of the orphan asylum as shown in the play. I wrote to Miss Webster and asked her if she would like to see the new orphan asylum. She was perfectly delighted, and I look back on one of the pleasantest days of my life when I piloted her about the new buildings. Her gratitude was touching for the change that the president of this institution had brought about over the squalid and unhappy conditions that had prevailed in the past. But this was not exactly Miss Webster's dream or conception of what she would have done had she lived.

The buildings at Pleasantville are on the plan of the greatest good for the greatest number. It is a large institution, accommodating five hundred children on a cottage plan, with thirty children in each cottage. Of course this was the only thing to do with many hundred children, but Miss Webster's idea was for a building of a more intimate nature, a home for a few children, a home in every respect, with the lovely living-room and open fireplace, where the children gather around at night, listening to the stories of a motherly soul who took care of them; and I hope I have been able to put the ideas of Miss Webster,

which no doubt she would have built had she lived, into this new building.

There were to be no large dormitories with fifteen and twenty children in each dormitory. No, she would have had none of that; no more than four or five children in each room. Then there would be fine open sleeping-porches for the poor children who were anæmic and needed plenty of

fresh air. In the dining-room there were not to be long tables with oil-cloth and all the children at one table; there again her idea was to have little tables of four or five to a table, making cosy little groups, and the rooms would not be plastered with chromos and ugly pictures. Her idea was to have little net curtains and in the living-room book-shelves with cheery books. The walls were to be rough sand-finish plaster of a nice bright cream tone. There would be showers and nice baths with modern plumbing and sanitary steel lockers. The rooms would be large and airy, with plenty of windows, letting in sunlight and happiness. The kitchen would be spotlessly clean, and the boys would have their own dining-room and the girls theirs, with a separate pantry for each connecting from the kitchen; and if a kiddie fell sick there would be a little infirmary where he would be nursed



Vista from porch.

back to health, with every care of competent physicians and nurses; a great big playroom for rainy days where they could romp to their hearts' desire, and, of course, comfortable quarters for the staff.

There is no style of architecture which lends itself so admirably to the picturesque, domestic qualities as the domestic English Gothic, so we have made a low, rambling building of two stories instead of the high, boxy building.

Miss Webster had in mind fine evergreen planting to make the place cheerful in winter, and for the summer picturesque gardens filled with herbaceous planting, hollyhocks, sweet-williams, foxgloves, asters, etc., all giving a riot of color, imparting happiness and cheerfulness; then,



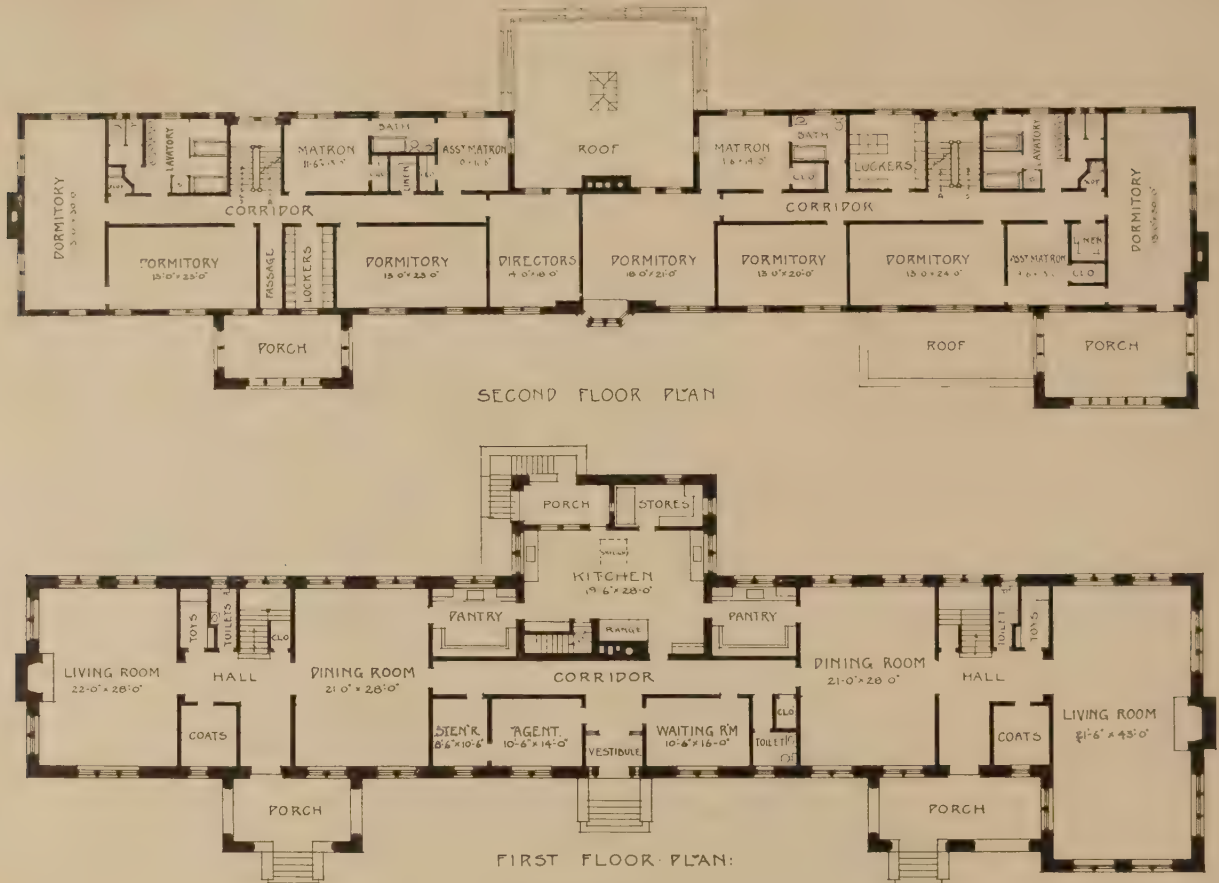
FRONT, STAMFORD CHILDREN'S HOME, STAMFORD, CONN.

Harry Allan Jacobs, Architect.

somewhere, there would be a little trickling fountain to make the place cool in hot weather.

All these charming ideas Jean Webster had in mind, and if I have been able to install them in the new building it is because I felt the soul of Jean Webster as having been with me in designing it.

I hope that I have not omitted anything to make the children comfortable and happy. I have endeavored, in every way, to keep the spirit of the real home; and trust that this feeling will permeate the soul of the little children and make them happy and contented, and fit them morally, physically, and mentally to battle with what is to come.



We Must Protect Our Forests

GREATER conservation of wood and wood products through protection for the raw material in the forests of the United States is urged by Secretary Houston's assistants in the Department of Agriculture. The secretary's annual report also advocates provisions for pushing more rapidly the improvement work in the forests, for a greater number of forest guards, and for earlier organization each fire season of the protective system.

It is declared that protection of the forests during the present year proved an exceptionally difficult task. An annual strain was imposed on an organization somewhat depleted in numbers and much weakened by the loss of many of its most experienced men. Added to this was the difficulty of securing good men for temporary appointment as guards during the fire season, and parties of men for fighting large fires. An unusually early and severe dry season caused the outbreak of serious fires before the summer protective organization was fully ready.

The department declares that some embarrassment in meeting the situation was caused by the failure of the annual appropriation act to pass Congress until after the fire season was virtually over. Relief was furnished by the President, who placed \$1,000,000 at the secretary's disposal

as a loan from the President's emergency fund. It may be necessary, the secretary says, to seek from Congress again a deficiency appropriation of \$750,000.

New York City Real Estate Values

FOR the purposes of comparison with other cities, or to approximate debt limit or bankruptcy possibilities and other more or less idle calculations, New York realty is generally taken at the assessable value base. The Tax Department figures the value of taxable realty at \$8,339,638,851.

That represents only a partial valuation, however, for there is much property which does not appear in tax lists. For instance, the city itself in the way of schools, police-stations, parks, bridges, fire-houses, and other municipal necessities, not to mention land held idle taken for school purposes and other future needs, which is estimated as having a value of \$1,707,664,450.

The United States, in forts, navy-yards, custom-houses, assay offices, hospitals, and other possessions, totalled this year a value of \$69,625,500. The State has city property worth \$7,349,035, and churches and religious organizations occupy tax-free properties to a value of \$415,447,817.

Should all property in New York City be taxable, the levy would be based on \$10,539,725,653.

The New York Evening Post.



REAR, THE STAMFORD CHILDREN'S HOME, STAMFORD, CONN.

Harry Allan Jacobs, Architect.

For a Better Co-operation Between Architects, Engineers, the National Government, and Other Organizations

From an Address by D. Knickerbacker Boyd

At the last Convention of the American Institute of Architects

ATTENTION has been recently called to some of the activities of the American Society for Testing Materials, the National Fire Protection Association, the Underwriters' Laboratories, the United States Bureau of Standards, and of some of the departments of the United States Government.

Various other departments of the government, as well as these and other organizations throughout the country, are performing services at all times and issuing publications that are of the greatest interest and usefulness to the architectural profession and other interested citizens—and yet how few of us, comparatively speaking, realize what is being done in this direction and how we are being benefited. The point is, that being the case, should it not create a reciprocal obligation on our part to co-operate with these agencies, not alone by availing ourselves of the information which can be obtained through publications issued by them, but by participating as fully as possible in their activities and contributing to the results which made these publications possible? Should we not, as many of us as can, be members of the National Fire Protection Association, the American Society for Testing Materials, and some of the other national organizations which are working for the good of us all in the various problems connected with the sheltering of humanity?

How few of us are aware that the Department of Agriculture will provide information and furnish publications to any architect or any citizen of the United States who asks for either. Many of the excellent publications are absolutely free and others may be had at merely nominal prices. It seems to me we should acquaint ourselves with the service which this department renders and the publications which it issues, and that in the case of the latter we should use as many of them as we can, should review them, and, wherever possible, offer suggestions for their amplification, improvement, or greater distribution and utilization.

The same department has prepared an elaborate and most interesting model of a farmstead, showing all the buildings of such a group as well as the layout of the grounds. Why should we not get in touch with the Department of Agriculture and offer our services in further developments of this idea, and see that such models are given the widest circulation and recognition possible?

The same thing applies to the Bureau of Education in the Department of the Interior. That bureau not only issues comprehensive publications relating to schoolhouses and all educational matters but has prepared drawings for schools for the smaller communities of the country. I wonder how many of the architects know that such drawings have been prepared, that they are available to, and are secured and used by, school boards and communities? Why should we not co-operate with the government in the issuance of such drawings, if they need improvement, and, if not, at least let the department know that we are with it in this movement? It also has prepared a model for a schoolhouse for a small community, and that model is being asked for by school boards in various parts of the country, and has

doubtless proved very helpful to them in arriving at conclusions.

The United States Department of Labor and the Bureau of Mines have both made investigations into the subject of the housing of employees for many kinds of industry, and they have issued valuable publications relating to this subject, which includes a monthly bulletin of the Bureau of Labor Statistics. I do not know how many architects are aware of these facts or whether they have applied for any of those publications, but, if not, they should.

The Navy Department issues specifications for materials that are used in many features of building construction. These we should know of and benefit by the results of these investigations.

In these and many other ways we should recognize what is being done for us by the various departments of our own government and afford them the realization that, as citizens, we are utilizing the results of their endeavors and are willing also to assist them in every way we can.

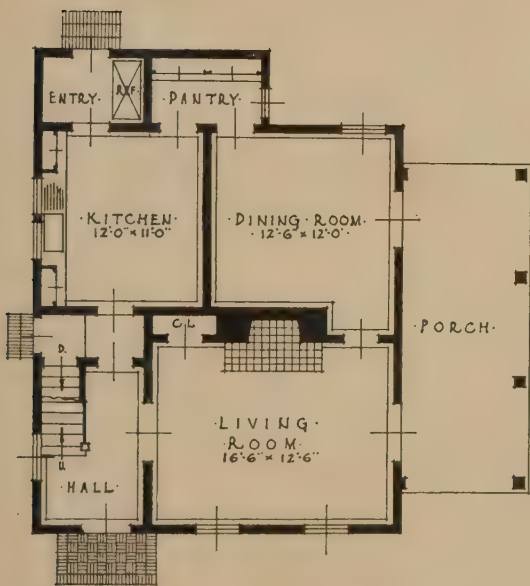
Among other things, we should, it seems to me, co-operate with the American Society of Civil Engineers and other great engineering societies far more than we have ever done. In recognition of the important developments in materials and appliances which they have brought about, we should voice our desire and willingness to take a more active part in such work.

We should also maintain a more cordial contact with and give encouragement and assistance to such organizations of producers and manufacturers as are constantly and conscientiously endeavoring to improve materials and processes and bring about a better understanding of their varied characteristics.

And, at the same time, I want particularly to mention the necessity for correcting the lack of co-operation on our part with the craftsmen, mechanics, and others employed upon buildings. In this connection the American Federation of Labor maintains a Building Trades Department, composed of nineteen organizations known as "Internationals," with local branches in different parts of the country covering the various industries that pertain to building construction. These concern themselves, among other things that we ought to know more about, with methods of safety in construction and the use of building materials.

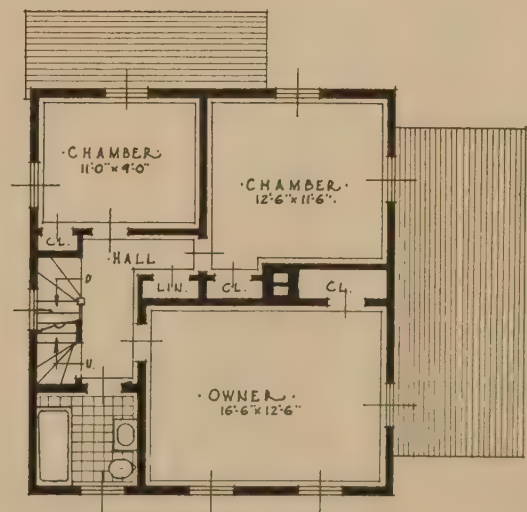
Other organizations that we should consider are the Public Health Association, the American Hospital Association, the National Association of Real Estate Boards, the Illuminating Engineering Society, the National Safety Council, the American Museum of Safety, the Workmen's Compensation Service Bureau, with the valuable work and publications of all of which we would do well to familiarize ourselves.

The National Education Association is another one of the bodies which is working for the safety of occupants in buildings and is one which has a Committee on Standardization of Schoolhouse Construction and Planning.



·FIRST·FLOOR·PLAN·

HOUSE AND PLANS, EUGENE KRUSKAL, PELHAM MANOR, N. Y.



·SECOND·FLOOR·PLAN·

Julius Gregory, Architect.

The Work of the United States Housing Corporation

Project No. 457—Hammond, Indiana

AT the southern end of Lake Michigan, within an hour's ride of Chicago, are several towns known as the Indiana steel towns, of which the most important are: Gary, Indiana Harbor, East Chicago, and Hammond. South Chicago, across the line in Illinois, and north of Hammond, can be classed with this group, which also includes a number of smaller towns or communities.

The entire section has had a remarkable growth, which undoubtedly will continue because of the elements inherent in the location that appeal to the manufacturer, such as exceptional water and rail transportation for raw material and finished product, broad, flat acres on which to expand, and close proximity to a large population.

Housing for these communities has been a live question from the moment the United States Steel Corporation and others located their immense plants in this vicinity a few years ago.

Hammond is one of the towns which has shared in the growth of the section, and is the home of several manufacturing concerns employing large numbers of workmen. One of these plants, the Standard Steel Car Company, was engaged in urgent government work, and was seriously handicapped in production by lack of facilities to care properly for its employees. As no other solution of its housing problem was found to be adequate, the housing development described below was inaugurated. The lot plan for this project was made by Mann & McNeille, architects, for the Ordnance Department of the army, and the installation of the street paving and utilities was undertaken and completed by the Standard Steel Car Company, prior to the taking over of the project by the U. S. Housing Corporation.

The large hotel in the centre of the group which is used to house employees of the company, was erected and completed by the Standard Steel Car Company before the erection of the houses was commenced.

The designing of the houses was assigned to J. C. Llewellyn, architect, of Chicago. The need for them was urgent and the purpose has been to design them so they would build easily. Hence compact plans, simple elevations and the use of materials which could easily be obtained in the neighborhood were favored. As contracts for the houses were let at a time of the year which might carry construction into late fall or early winter, the use of materials that would require time to dry out, or that would need fair weather for finishing—such as concrete walls and construction or tile, and the general use of stucco for outside finish—was avoided, and as far as possible houses of frame construction, interspersed with houses of brick, or brick and a limited amount of stucco, were decided upon. As matters have worked out the exteriors of the houses are practically complete, and the small amount of finishing that remains to be done at present is not dependent on weather conditions.

The development consists of 163 single family houses and 11 boarding-houses, each of the latter capable of caring for the equivalent of at least one additional family, thus making a total of 185 families accommodated. The houses are distributed as follows:

NO. FAMILIES	
7 4-family four-room houses, brick construction—Type C.....	28
6 4-family four-room houses, frame construction—Type C ¹	24
17 detached four-room bungalows, frame construction—Type I.....	17
5 2-family four-room semidetached bungalows, frame construction—Type J.....	10
42 detached six-room houses, frame construction—Types E, E ¹ , A.....	42
11 semidetached 2-family houses, brick construction—Type B.....	22
6 detached six-room houses brick and frame construction—Type D.....	6
14 detached seven-room houses, frame construction—Type F.....	14
4 boarding-houses, brick and stucco construction—Type G.....	
7 boarding-houses, frame construction—Type II	



All houses are complete, with full basement, furnace heat, hot and cold water to bathrooms, sinks and laundry trays, electric light and bells. Each family has a plot of ground 40x100 feet, except for the four-family houses

occupying special corners, as shown, where the ground area to each house will be somewhat less.

In the four-family houses (Type C) the centre houses have direct service from the street to the rear by means of a covered passageway, and are independent of their next-door neighbors in all matters of kitchen service, removal of garbage, etc. There are no alleys, all service coming from the front.

From the standpoint of design the architect has considered the development as a whole and not as a group of unrelated houses, differing widely in type and design, and have endeavored to gain an attractive effect mainly by variation in mass—rather than by the variation of styles, materials and colors so often employed. The object has been to maintain simple, straightforward lines, unbroken roofs and cornice lines, thus eliminating elements in construction which are expensive and not always of value. In the plans of all two-story houses there is no diminution in floor area in the second-story due to gambrel roofs, and no multiplicity of down spouts because of broken cornices.

The variation in the design of the houses with the different materials employed has given a variety to the ensemble which has no element of monotony. All frame houses

(Continued on page 54)



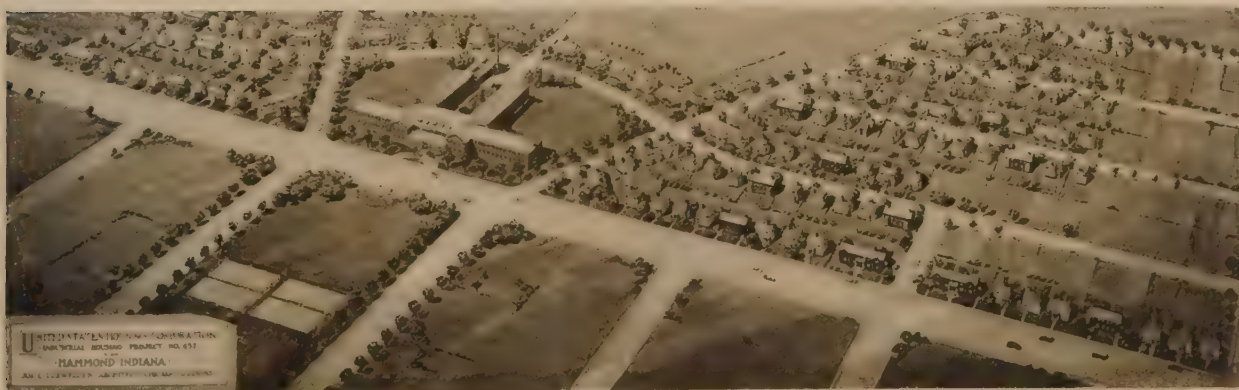
TYPES C, E, C, A, E, E.



TYPES E, E, G.



TYPES D, I, J, I.



PLOT, PROJECT 457, HAMMOND, IND., FOR U. S. HOUSING CORPORATION.

Plot Plan, Mann & McNeille, Architects.
Houses, J. C. Llewellyn, Architect.

are sided with wide, rough clapboards of white pine stained with a silver-gray stain. They are trimmed with cornices, sash and doors and frames and lattices of porches in white, and topped with roofs the color of sea-green slate. Brick houses are faced with dark-purple red brick, laid with rough joints, and trimmed with white cornices, sash, doors and frames, trellises, etc., and roofed in the same manner as the frame houses.

Throughout the designing of the houses in the group there has been no attempt toward striking effects, but rather the aim has been to build comfortable houses for a price as low as possible, to offset the unusual prices of labor and material due to war conditions, and to build a community of houses each one of which bears the community stamp yet with enough variety to give each house a certain degree of individuality.

After this project has become a live addition to the community a survey of conditions here and in all other cities where housing for war needs has been built will prove very interesting in a sociological way to the general public as well as to housing specialists. It is well to consider the benefits that will accrue locally from these new cities and communities. Improved conditions are already apparent, and new ideas of civic pride and organization are bound to spread beyond the confines of these war-emergency towns. The large scale of the projects as compared to previous private speculative developments, combined with an appeal

to patriotism, has afforded the opportunity of engaging high-grade specialists, working co-operatively to an extent that professional jealousy and the lack of an urgent crisis had largely prevented before the war, with the result that better homes have been provided than had ever been attained in pre-war construction of this type. And this has been done economically and upon a sound and practical basis, notwithstanding the ever-increasing cost of building materials and wages.

This war-time emergency construction is bringing to the attention of manufacturers and municipalities the fact that a sufficiency of good housing attracts the worker and consequently draws new industries to the locality. It also furnishes a valuable criterion for industrial housing of the future. The beneficial effect of good housing upon the health, happiness, and efficiency of the worker is being

more generally realized. While much has been done in a short time, it may be said that we are just beginning to solve this important and difficult problem. The entire elimination of slum districts throughout the land should be the goal. Housing for war needs has shown the way as no private enterprise could have shown it. It is to be hoped that we do not drop back to our pre-war somnolence, but rather that we benefit by the providential crisis that has awakened us.



New Activities of the Indiana Limestone Quarrymen's Association

THE Indiana Limestone Quarrymen's Association has arranged to place three representatives in the field whose activities will be confined to the promotion of *Indiana Limestone* generally without regard to the interests of any single producer.

Mr. George B. McGrath, 1531 Park Road, Washington, D. C., will cover the eastern territory, that is, the New England States, New York State, Pennsylvania, Virginia, the Carolinas, and Georgia.

Mr. C. R. Yanson, of Bedford, Indiana, will cover the Middle States, embracing lower Wisconsin, the Mississippi Valley, and east to Mr. McGrath's territory.

Mr. J. R. Sargent, 225 Clay Street, Topeka, Kansas, will cover the territory west of Mr. Yanson's, to and including the eastern slope of the Rocky Mountains.

The purpose, simply stated, is to stimulate interest in *Indiana Limestone*.

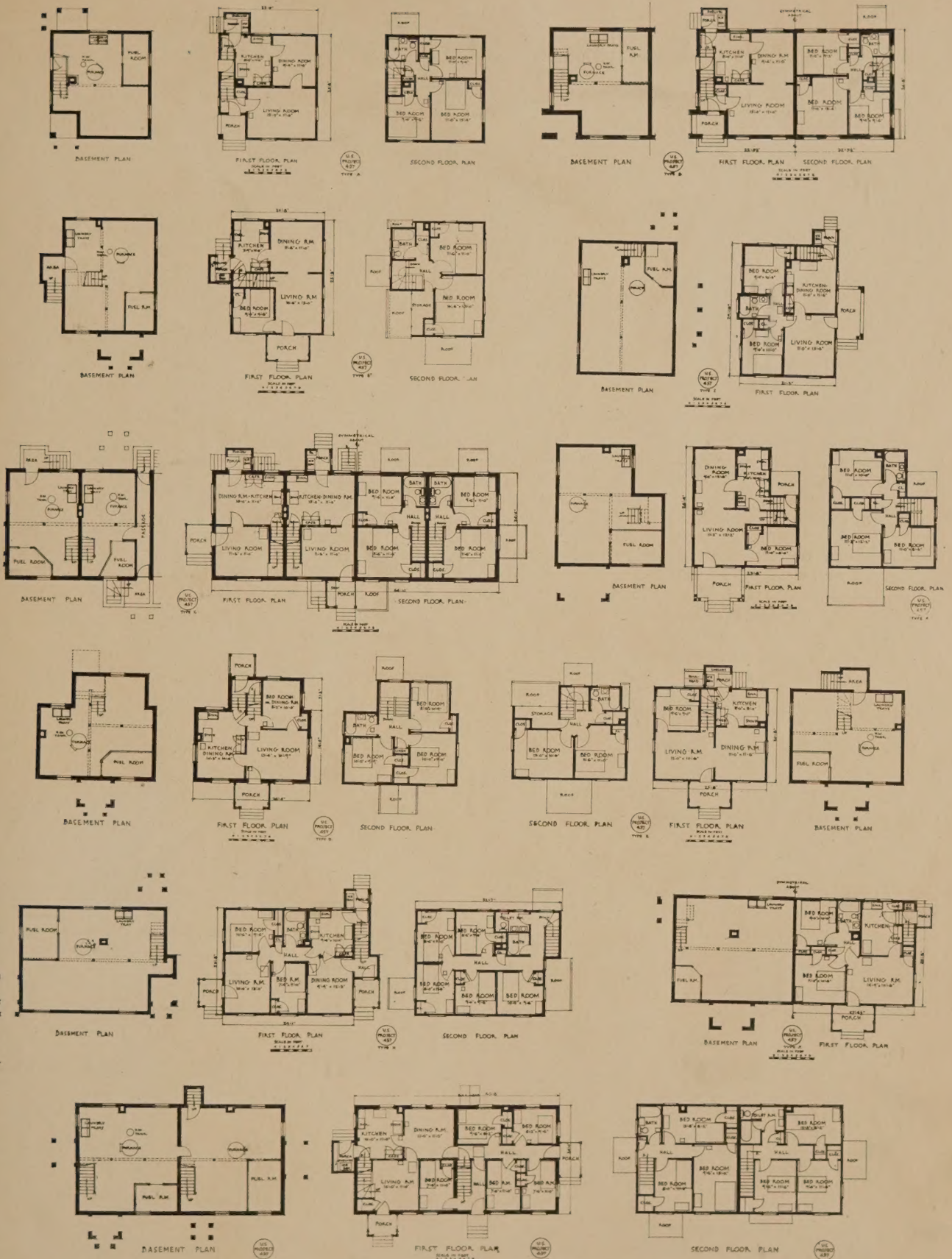
This will be done along legitimate lines and with full recognition of all conditions which make the architectural profession the great controlling factor in the creation of buildings.

The architectural profession may, therefore, feel that this new service of the Indiana Limestone Quarrymen's Association is at its disposal and that it can call on this service at all times.

They are preparing matters in such a way that there will be available accurate technical data, much of which heretofore has been only half formulated, if at all. It is their purpose to distribute unbiassed and entirely dependable information pertaining to the use of *Indiana Limestone* structurally and ornamentally.

While prospects generally are not definite at the moment, they do not intend simply to wait for things to happen, but are going to help make them happen, and hope that their efforts will find the hearty co-operation of the architectural profession.

Quite a little figuring is going on but as yet it appears to be confined to small jobs. The volume of inquiries, however, is growing and early spring will see some business of consequence and summer quite a good deal. The *Indiana Limestone* district did a business of about 2,500,000 cubic feet in 1918 and expect, at least, to double that in 1919.



Legal Decisions of Interest to the Architect

These decisions are edited by Mr. John Simpson

EVIDENCE OF ABILITY TO FINISH WORK

In an action by a contractor for breach of a building contract the defendants undertook to show that the plaintiffs had wrongfully failed and refused to complete the building according to the terms of the contract, due to the fact that they were financially unable to furnish sufficient material of proper quality and a sufficient number of properly skilled workmen to carry on the work. This was denied by the plaintiffs. The North Carolina Supreme Court held that on this issue it was competent for the defendants to show that the plaintiffs had executed a note to another on which judgment had been obtained.—*Wilkerson vs. Pass* (N. Car.), 97 S. E. 466.

RENDITION OF MONTHLY STATEMENTS

In an action to foreclose four successive mechanics' liens for work and material furnished under the same contract for the alteration of a house it was alleged that the contract provided that the contractors should receive for the work and material furnished the actual net cost thereof, plus 10 per cent; payments to be made monthly, immediately upon the rendition of monthly statements by the plaintiffs to the owner. It is held that under such a contract the rendition of the statements by the builder to the owner would be a condition precedent to the builder's right to receive any payment from the owner; and in an action by the builder upon the contract it would be necessary for him to allege either that such statements had been rendered to the owner or that their rendition had been waived by him.—*Smith vs. Walter*, 172 N. Y. Supp. 97.

THREE-WEEK PERIOD PAYMENTS

A contractor sued an owner for breach of a building contract which provided that the latter would make payments of 75 per cent of the value of the labor performed and materials incorporated on the premises every three weeks. The defendant contended that the work done and materials furnished during each three weeks constituted, under the terms of the contract, a separate contract, and the settlements made at the end of the three-week periods became accounts stated. It was held that such a contract provision does not so operate, but is a means provided by the contracting parties for estimating the amounts of the progress payments.—*Steere vs. Formilli* (Cal.) 175, Pac. 806.

MATERIALMAN'S LIEN

Under the terms of a mechanic's lien statute (North Carolina Rev., 1905, § 2021) the contractor must notify the owner by a statement properly itemized, showing the amount owing to the materialman, and the owner must retain from the amount due the contractor the value of the materials furnished. A mere notice by the contractor to the architect to procure his amount per cent by making a satisfactory showing of the amount of material delivered, without also showing that same is due to the materialman and not intended as notice on behalf of the latter, is no compliance with the statute and creates no lien for the materials. Mere knowledge on the part of the owner that certain laborers are at work on the building or that certain persons or firms

have supplied material, does not suffice.—*Norfolk Bldg. Supplies Corp. vs. Elizabeth City Hospital Co.* (N. Car.), 97 S. E. 146.

DEVIATION FROM SPECIFICATIONS—EXPERT EVIDENCE

In an action for money paid on account of the purchase price of property with the buildings in course of erection thereon, which the plaintiff had refused to accept on the ground of deviation from the specifications required by the buildings laws of the city of Philadelphia, the sole question was whether the departure from the specifications was intentional or so material as to justify the plaintiff in refusing to complete the purchase. The testimony was conflicting, and the question was necessarily one for the jury to whom it was submitted with instructions that, if the variations were material, the plaintiff would be entitled to recover the money paid, but if the defects were merely minor matters, the contract provided a way in which they could be adjusted. The jury found for the defendants.

On appeal the plaintiff complained of the action of the trial judge in permitting expert witnesses for the defendants to state whether in their opinion there had been a substantial performance of the contract in compliance with the plans and specifications, the objection not being to the competency of the inquiry, but on the ground that the answers of the witnesses were not based upon a hypothetical statement of the facts. While the usual practice is to receive the testimony of an expert in the form of answers to hypothetical questions which he, for the purpose of his testimony, assumes to be true, an expert frequently has occasion to personally examine the subject-matter of the inquiry. Each expert offered by the defendants made a personal examination of the buildings, together with the plans and specifications, and the Pennsylvania Supreme Court held that an objection that they should not be permitted to testify as the result of such examination without the use of a hypothetical question could not be sustained. Judgment for the defendants was affirmed.—*Loeb vs. Davidson* (Pa.), 104 Atl. 681.

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